Anny CAZENAVE

SUMMARY

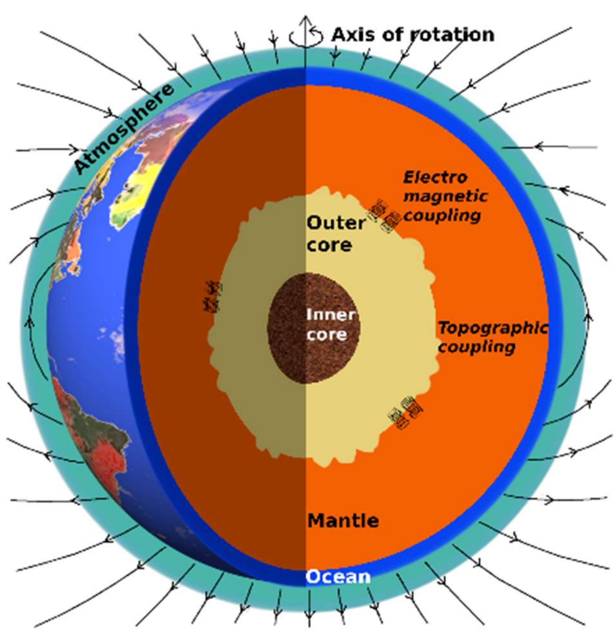
Anny Cazenave is currently emeritus scientist at the 'Laboratoire d'Etudes en Géophysique et Océanographie Spatiale', University of Toulouse, France. Until recently, she was director for Earth sciences at the International Space Science Institute, Bern, Switzerland. Her research deals with the applications of space techniques to Earth sciences. In the first part of her career, she used space geodesy techniques for studying solid Earth geophysics (gravity field; Earth rotation and polar motion; ocean and solid Earth tides; precise positioning by space geodesy techniques and applications to tectonic motions, vertical crustal motions, geocenter motions; marine geophysics, lithosphere and mantle properties). In the last 25 years, she moved to oceanography, hydrology and climate research, focusing on climate-related sea level rise from global to local scales and causes (ocean warming, land ice melt), and well as on the continental water cycle. She served as lead author for sea level of the IPCC (Intergovernmental Panel on Climate Change) Working Group I (4^{th} and 5^{th} Assessment Reports). She is a member of the French academy of sciences and foreign member of five other science academies.

In 2020, together with Veronique Dehant and Mioara Mandea, she was awarded the ERC (European Research Council) 'Synergy' project GRACEFUL. The GRACEFUL project combines magnetic, gravitational, and rotational data with advanced models to reveal how Earth's core dynamics influence not only its deep interior but also the entire Earth system, including the climate system, through interconnected fluid and solid layers. Her contribution to the project concerns the discovery of a 6-year cycle in the climate system.

Annex 1: Curriculum Vitae

Annex 2: Research accomplishments

Annex 3: List of publications



ANNEX 1: CURRICULUM VITAE (JANUARY 2025)

Anny CAZENAVE

Laboratoire d'Etudes en Géophysique
et Océanographie Spatiales (LEGOS),
Centre National d'Etudes Spatiales (CNES)
18 Avenue Edouard Belin, 31401 Toulouse Cedex 9 - France
Tel.: (33) 676476201
E-mail: anny.cazenave@univ-tlse3.fr, anny.cazenave@gmail.com, anny.cazenave@academie-sciences.fr

Web page and full CV available at https://www.academie-sciences.fr/fr/Liste-des-membres-de-l-Academie-des-sciences-/-C/anny-cazenave.html

EDUCATION:

Ph.D Thesis (Doctorat d'Etat) in Geophysics (Rotation of the Earth), *University of Toulouse*

Professional experience:
Emeritus scientist at LEGOS/CNES, Toulouse, France; Previously research scientist at LEGOS and deputy director of LEGOS over 1996-2007;
Director for Earth Sciences at the *International Space Science Institute* (ISSI), Bern, Switzerland (2013-2021);
Invited professor at the Collège de France, 2012-2013, Annual Chair 'Développement Durable-Environnement, Energie et Société.

RESEARCH INTERESTS: APPLICATION OF SPACE TECHNIQUES TO GEOSCIENCES

Applications of Earth observations from space to:
Satellite geodesy and solid Earth geophysics: Gravity field; Earth rotation and polar motion; tides; precise positioning by space geodesy techniques and applications to tectonic motions, vertical crustal motions, geocenter motions; marine geophysics, lithosphere and mantle properties.
Climate research: Sea level variations at global, regional and local scales (observations from satellite altimetry and tide gauges; study of climatic causes: ocean thermal expansion, land ice melt, land water storage change, projections); global water cycle and land hydrology from space.

PUBLICATIONS:

265+ articles in international refereed journals (18 900 citations, Hindex: 69; *ISI Web of sciences, January 2025*) (Full list of publications available at https://www.academie-sciences.fr/fr/Liste-des-membres-de-l-Academie-des-sciences-/-C/anny-cazenave.html). Editor/co-editor of 12 books, including 'Satellite altimetry over oceans and land surfaces', Stammer and Cazenave editors, Earth observation of global changes book series, CRC Press, 620 pages, 2018, and 'Satellite Altimetry and Earth Sciences. A handbook of Techniques and Application, Fu and Cazenave editors, Academic Press, Vol. 69, San Diego, USA, 2001'. Author/co-author of 3 popular books, including '*La Terre et l'environnement observés depuis l'espace*', Fayard, 2013.

INTERNATIONAL RESPONSIBILITIES (CURRENT AND RECENT PAST ONLY):

On-going: Scientific coordinator of the 'Coastal Sea Level' project of the ESA '*Climate Change Initiative'*; Member of the ESSC (*European Space Science Committee*) of the European Science Foundation*;* Member of the Scientific Advisory Panel for the *National Sea Level Programme*, Centre for Climate Research, Singapore; Vice-chair of the ERC Synergy evaluation panel (2021-2022 and 2023-2024); President of the Geodesy section of the *American Geophysical Union* (2021-2022);

***Recent*:** Member of the Advisory Committee of *Future Earth (2018-2021);* Member of the Joint Science Committee of the WCRP (*World Climate Research Programme*) (2013-2018); Lead author of the 4th and 5th Assessment Report (*Sea Level chapter*) of IPCC (*Intergovernmental Panel on Climate Change*) Working Group I (2004-2007 and 2008-2013). Member of several panels of the NRC (*National Research Council of the National Academies, 2021-2022; 2016-2017, 2011-2012, 2008-2010, 2005-2007*). Member of the 'Advanced Grant, Earth System Sciences' panel of ERC (*European Research Council*) (2008-2015).

NATIONAL RESPONSABILITIES (RECENT PAST ONLY):

Member of the 'Haut Conseil' of the TGIRs (*Très Grandes Infrastructures de Recherche*, Ministère de l'Enseignement Supérieur, de la Recherche et de l'Innovation (2020-2022); Member of the '*Comité d'Orientation Scientifique'* of the Toulouse 3 University (2020-2022) ; Expert, Institut des Hautes Etudes de Défense Nationale (2020) ; Member of the 'Comité d'Orientation Stratégique', IRD (Institut de Recherche pour le Développement) (2016-2020) ; Member of the '*Conseil d'Administration*' of Météo-France (2015-2018) ; Chair of the Scientific Council of Météo-France (2010-2015); Member of the '*Comité d'Orientation Stratégique'* of IRD (*Institut de Recherche pour le Développement*) (2016-2020); Member of the '*Conseil Supérieur des Programmes'*, French Ministry of Education (2013-2016); Member of the '*Conseil d'Administration*' of CNRS *(Centre National de la Recherche Scientifique)* (2009-2015).

SUPERVISER OF 28 PHD THESES:

S. Daillet (1984), P. Pinet (1985), S. Calmant (1987), P. Gaudon (1988), J.C. Marty (1989), M. Monnereau (1990), J.J. Valette (1992), C. Thoraval (1994), P. Calcagno (1995), L. Soudarin (1995), P. Gegout (1995), R. Abarca del Rio (1997), P. Lecroart (1997), G. Ramillien (1998), F. Bouille (2000), F. Mercier (2001), S. Mangiarrotti (2003), C. Cabanes (2003), I. de Oliveira Campos (2004), T. Ngo-Duc (2005), A. Lombard (2005), F. Frappart (2006), V. Enjolras (2007), W. Llovel (2010), L. Xavier (2012), B. Meyssignac (2012), H. Palanisamy (2016), H.B. Dieng (2017).
The PhD students and postdocs mentored by A. Cazenave have collaborated with her on publications. Their names appear in italics in the publication list below.

COORDINATION OF (OR PARTICIPATION TO) NATIONAL AND INTERNATIONAL PROJECTS:

Current and recent past only
P.I. of an ERC (*European Research Council*) 'Synergy Grant' (GRACEFUL Project) (2020-2026);
Science leader of the 'Coastal Sea Level' project of the ESA 'Climate Change Initiative' (4 partner teams) (2019- 2026); Partner of the ESA projects 'Regional Sea Level Budget Closure' (2023-2026) and 'Global Sea Level Budget Closure' (2017-2020); Science leader of the 'Sea Level' project of the ESA 'Climate Change Initiative' (15 partner teams) (2011- 2017).

EDITORIAL RESPONSIBILITIES:

Current: Member editor of PNAS (*Proceedings of the National Academy of Sciences, USA);* Guest editor *of Surveys in Geophysics;* Member of the editorial board of « Nature Scientific Data » journal; Previously: Editor of EOS (*American Geophysical Union*) and Editor-in-chief of '*Earth and Planetary Science Letters'*.

INTERNATIONAL INVITED LECTURES:

4-5 on average every year (46 international invited lectures since 2015).

ORGANISATION OF 12 INTERNATIONAL WORKSHOPS

6 since 2015 on water resources, coastal sea level, coastal zones, geohazards, deep Earth's interior, global change in Africa.

HONORS AND AWARDS:

Science Academies
Member of the *French Academy of Sciences* (2004)
Foreign member of the: *European Academy of Sciences* (2022*); Royal Society* (UK, 2021); *National Academy of Sciences* (NAS, USA, 2008); *Royal Academy of Belgium* (2014); *Indian National Science Academy (INSA, New Delhi,* 2012*); Academia Europaea* (1990).

Others
Honorary Fellow of the *Geological Society of India* (2024); Fellow of the IUGG (*International Union of Geodesy and Geophysics*, 2019); Member of the *Bureau des Longitudes*, Paris (2014); Fellow of the AAAS (*American Association for the Advancement of Science*, 2012); Fellow of the AGU (*American Geophysical Union*, 1996); Member of the *European Academy for Aeronautics and Space* (1986).

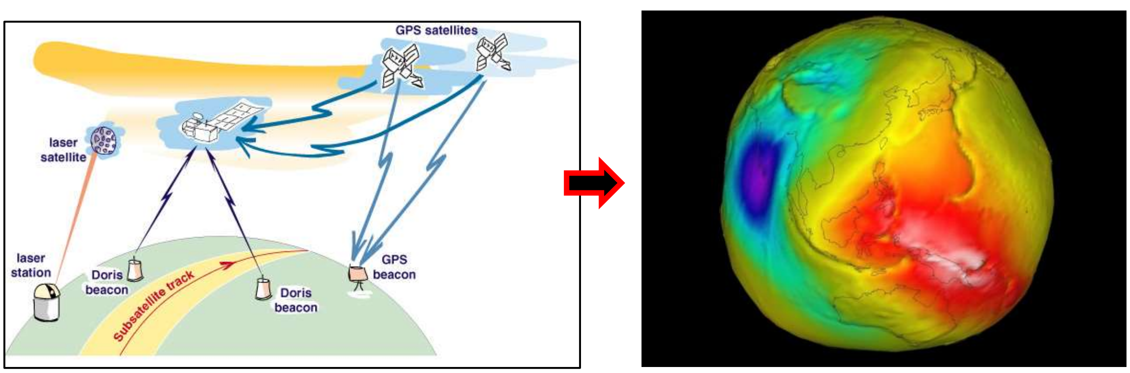
Scientific Awards
Leonardo da Vinci Prize, European Academy of Science (EURASC) (2022); Women in Aerospace Prize (2022); Vetlesen Prize, Columbia University (2020); BBVA 'Frontiers of Knowledge' Award, category 'Climate Change' (2019); Nansen Polar Bear Award of the *Norwegian Nansen Center* (2016); Georges Lemaître Prize of the *University Catholique de Louvain* (2015); Bowie Medal of the *American Geophysical Union* (2012); Prize 'Emile Girardeau' of the '*Académie de Marine*' (2010); Prize Manley Bendall, Medal 'Albert 1er de Monaco' of the *Institut Océanographique de Monaco* (2008); Arthur Holmes Medal of the *European Geosciences Union* (2006); Vening-Meinesz Medal of the *European Geophysical Society* (1999); Prize Kodak-Pathé-Landucci of the *French Academy of Sciences* (1996); Prize Doisteau-Blutet of the *French Academy of Sciences* (1979; 1990); Bronze Medal of CNRS (1980).

Civil Awards
Légion d'Honneur (*Commandeur*, 2018) ; Ordre National du Mérite (*Grand Officier*, 2015).

ANNEX 2: ANNY CAZENAVE- RESEARCH ACCOMPLISHMENTS

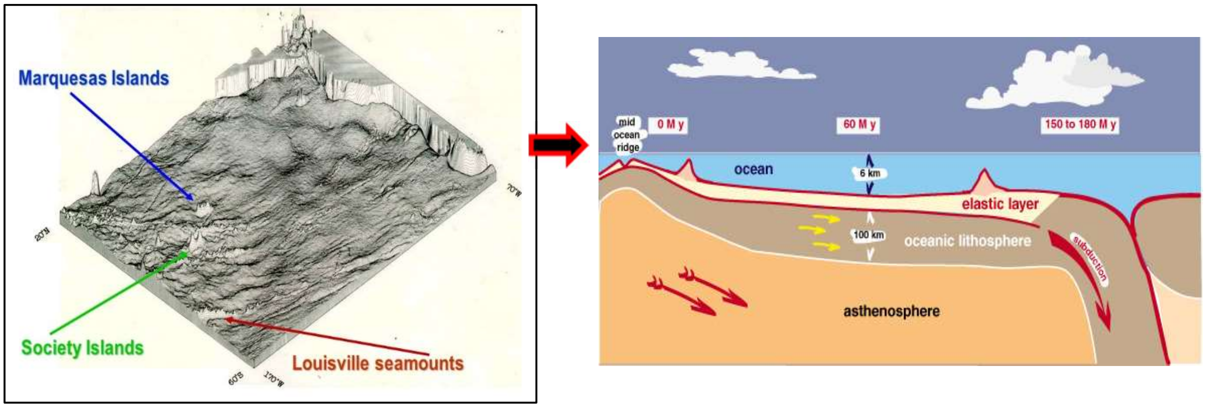
Anny Cazenave's research deals with the applications of space techniques to Earth sciences. It can be divided into 4 main topics (roughly in chronological order, although with some overlap in between):
(1) **Satellite geodesy** and applications to geodetic problems (Earth gravity field, tides, global Earth deformations, tectonic and geocenter motions, etc.), (2) **Marine geophysics**, mainly from satellite altimetry and (3) **Sea level changes** and its relation with climate, and (4) **Hydrology from space**.

After a 'Thèse de 3eme cycle' in astronomy at the Observatoire de Paris, Anny Cazenave (AC) prepared a PhD thesis (Doctorat d'Etat) on the rotation of the Earth under supervision of Kurt Lambeck (Australian National University). With the wind data available at that time, she could quantify for the first time the effects of the atmospheric circulation on the seasonal and interannual fluctuations of the length of day. Meanwhile, she started to work in the field of **satellite geodesy** at the Centre National d'Etudes Spatiales (CNES; the French Space Center), focusing on the determination of the long-wavelength anomalies of the **Earth's gravity field,** as well as **tidal deformations of the Earth**, from the analysis of orbits of geodetic satellites (including the passive laser satellite Starlette launched by France in 1975). With the development, during the 1980s and 1990s, of precise positioning techniques from satellite laser ranging and Doppler systems such as DORIS (Doppler Orbitography and Radio-positioning Integrated by Satellite), she moved to new problems such as the determination of present-day **large-scale tectonic motions**, **crustal deformations**, and **motions of the Earth's centre of mass** at seasonal and interannual time scales. In addition to measuring these phenomena, she also worked at explaining the causes of the observed motions (e.g., for the Earth's centre of mass and crustal deformations). For that purpose, she used different environmental data (of atmospheric, oceanic and hydrological origin), in addition to the space geodetic techniques.



Space geodesy techniques (left panel) allow determination of Earth's global properties, including its gravity field (visualized here by the geoid, an equipotential surface of the gravity field coinciding with the mean shape of the Earth –right panel).

With the launch of the very first satellite altimetry missions (Geos 3 and Seasat in the mid-to-late 1970s, Geosat in the mid-1980s, etc.), AC started to work on the geophysical applications of satellite altimetry. Although satellite altimetry was developed to study ocean dynamics, the early missions were not accurate enough to measure the tiny oceanic signal, mostly because of large satellite orbit errors caused by insufficient knowledge of the Earth gravity field at that time. However, these early altimetry missions provided invaluable new information on the **marine gravity field** through measurements of the 'mean sea surface' (or equivalently, the marine geoid). AC's early contribution to this domain was a very first determination of the 'mean sea surface', revealing that the permanent sea surface topography is not flat but mimics the **ocean floor topography**. With her PhD students, she provided global maps of the seafloor topography derived from satellite altimetry, revealing numerous unknown tectonic features as well as an enormous quantity of unknown seamounts. She further developed research to understand the causes of the observed anomalies of the marine geoid, which led her to get involved in various areas of marine geophysics. Her contributions concerned the **mechanical properties (elastic thickness) and thermal evolution of the oceanic lithosphere**, detection of **small-scale convection in the upper mantle** from its signature in the marine geoid, **deep structure of hotspot swells**, **mid-ocean ridges and fracture zones properties** derived from geoid anomalies, etc. At this epoch (1980s and 1990s), she also worked on the origin of the large-scale anomalies of the Earth's gravity field and their link with **deep mantle convection**, as well as on simultaneous inversion of gravity and seismic data to constrain the viscosity profile of the Earth's mantle and the large-scale convective flow.

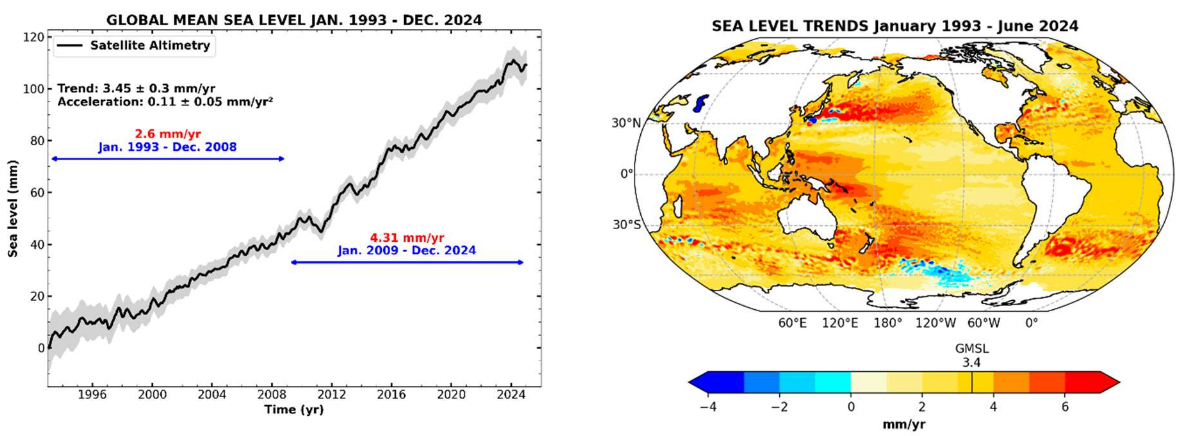


Very first determination of the mean sea surface by AC and her team using data of the Seasat altimeter satellite, revealing seamounts and tectonic features of the seafloor (left panel). This satellite and its successors helped understanding the structure of the oceanic lithosphere (right panel).

During the 1980s, AC also worked in **planetary science**. Her contributions in this domain concerned the origin of the orbital inclination the Martian satellites, Phobos and Deimos, the long-term evolution of the rotation of Venus, the dynamical origin of comets. She also developed numerical models of telluric planets formation and of initial planet rotations.

During the 1990s, the improvement of the performances of space geodesy techniques allowed the very first determinations of temporal variations of low-degree harmonics of the Earth's gravity field. AC was able to determine the seasonal variations of the long-wavelength geoid and to quantify the respective contributions of atmospheric loading and land hydrology to the observed geoid variations. This represented very preliminary attempts to study **temporal variations of the gravity field** (limited at that time to the longest wavelengths), prior to the revolutionary GRACE (Gravity Recovery and Climate Experiment) space gravimetry mission launched in 2002.

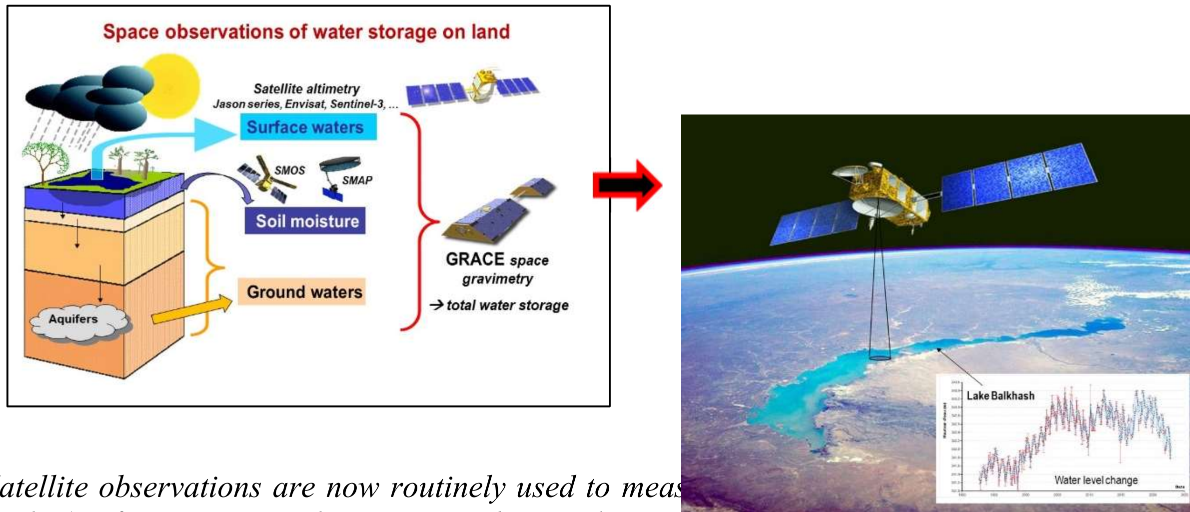
During the 1990s also, AC moved to climate research with focus on two main topics: **present-day sea level variations** and **continental water cycle**, and their causes. She decided to work on these topics in view of the spectacular increase through time of the precision of the altimetry missions. Improved models of the Earth's gravity field and of other forces acting on the satellite orbits, as well as improved geophysical corrections that need to be applied to the altimetry measurements, together with increased instrumental performances, opened the era of high-precision altimetry in the early 1990s. This started with the launch of the American-French mission Topex/Poseidon in 1992 (followed by several other high-precision altimetry missions such as Jason-1,2,3, Sentinel 6, and now SWOT, plus additional altimeter satellites from of the European Space Agengy). AC became quickly involved in the precise determination of sea level changes by satellite altimetry at regional and global scales. Her very first contribution in this area concerned the annual mean sea level (poorly known globally at that time) and its causes (quantification of the respective contributions of ocean thermal expansion and land hydrology)**.** With her PhD students, she further worked at improving the sea level measurements from multi satellite altimetry missions and at quantifying the **causes of the global mean sea level rise**: ocean thermal expansion using in situ hydrographic data, land ice melt and land water storage changes using GRACE space gravimetry data and models. She performed early investigations of the **sea level budget** and its closure over the altimetry era, combining altimetry, GRACE and in situ hydrographic data -including data from the Argo autonomous floats (as of 2005)-, an approach now widely applied by various groups worldwide. AC also studied the causes of the **interannual variability of the global mean sea level**, in particular the link with ENSO (El Nino-Southern Oscillation) events and showed that during El Niño/La Niña, the global mean sea level displays temporary positive/negative anomalies due to exchanges of water between tropical river basins on land and the tropical Pacific Ocean. Account of the effects of internal climate variability on the global mean sea level is very important to accurately estimate the evolution of rate of sea level rise due to external forcing factors, including anthropogenic forcing. AC and her team also studied the causes of the regional variability in sea level trends, developed 2-dimensional past sea level reconstructions to derive spatial trend patterns prior to the altimetry era (back to 1950) and determined the dominant modes of variability of these spatial patterns (found to be mainly driven by ENSO as well as other modes of natural –internal- variability of the ocean-atmosphere system, such as the Pacific Decadal Oscillation, the North Atlantic Oscillation). They addressed the problem of detection/attribution, i.e., tried to detect the anthropogenic signal in the spatial sea level patterns (comparing satellite altimetry data, past sea level reconstructions and outputs of coupled climate models with and without anthropogenic forcing) and concluded that spatial trend patterns revealed by satellite altimetry still mostly result from the internal climate variability. However, most recent results suggest the anthropogenic forcing starts to be detectable in some oceanic regions.



Global mean sea level rise (left panel) and regional trend patterns (right panel) measured by high precision altimeter satellites.

AC and her team also studied the **regional/local variability of the 'relative' sea level rise** (i.e., with respect to the crust) over the past few decades (considering the total –global mean rise plus regional variability, plus vertical crustal motions) in different regions, in particular the low-lying Pacific islands, the islands of the Indian Ocean, and of the Caribbean region.

In the early 2000s, AC initiated with her research group a new research topic: '**land hydrology from space**'. They showed that satellite altimetry can also be used to monitor temporal variations of surface water levels (lakes, rivers, man-made reservoirs) and developed a database of satellite altimetry-derived water level time series over thousands of lakes and rivers sites (called HYDROWEB). Altimetry-based water level time series over rivers are particularly useful in regions where in situ gauge networks are declining or are even inexistent (e.g., in Africa). They used this data set to study the hydrological behaviour of lakes and rivers under climate change and natural climate variability in different environments, as well as under direct human forcing (dam building on rivers, irrigation, land use, etc.). With the launch of the GRACE space gravimetry mission in 2002, they also conducted a series of studies dedicated to estimate the **total water storage change in large river basins,** determined ground water storage variations after accounting for the surface waters and soil moisture contribution, and more generally tried to use in synergy observations from different satellite sensors (altimetry, GRACE) together with model outputs, to determine different hydrological parameters of the continental water cycle.



Satellite observations are now routinely used to measure the different components of the continental water cycle (surface waters, soil moisture and ground waters) (left panel). Pioneering studies by AC and her team showed that satellite altimetry can be used to measure lake and river water levels (right panel).

Since a few years, Anny Cazenave's research is essentially devoted to two subjects: (1) **sea level changes** under different aspects: improvement of satellite measurements of sea level and quantification of uncertainties, estimates of the causes of sea level variations from global to local scales, and study of the impacts of sea level rise in the world coastal zones, and (2) the **detection and origin of a 6-year cycle in the Earth system.**

Since 2011, in the context of the European Space Agency (ESA) Climate Change Initiative (CCI) programme, AC is the science leader of a project on sea level involving several European partners, dedicated to improve the now 30+ year-long sea level record with high-precision satellite altimetry data. In the first phase of this project, AC and her partners worked at a complete reprocessing of altimetry data from nine different space missions, developing new algorithms and improved geophysical corrections, which led to the production of a new sea level data set (global mean and gridded time series) available to the international community. In parallel, AC and her team pursued their studies on the sea level budget using data from Argo, GRACE, etc., to estimate the different contributions to present-day sea level rise. Studying closure of the sea level budget has a number of potential applications such as the determination of unknown (or poorly known) components of the global mean sea level, e.g., deep ocean warming, not sampled by Argo (and its contribution to the Earth energy imbalance), or terrestrial water storage, the least well-known component of the sea level budget (sign even controversial)**.** This approach can also serve to detect instrumental drifts of the observing systems, for example the detection of the instrumental drift that affected the Topex A radar instrument onboard the Topex/Poseidon satellite over 1993-1998 (a problem now corrected).

Recently, AC also initiated new research (still in the context of the ESA CCI sea level project), consisting of estimating **sea level changes in coastal zones** (classical nadir altimetry does not work well within 10-20 km to the coast because of parasitic reflections from land; however, dedicated data reprocessing can be implemented to retrieve coastal sea level data that otherwise would be dropped). This is an important topic because, up to recently, one was unable to answer the question: "**Is sea level at the coast rising at the same rate as in the open ocean?"** For a number of reasons due to small-scale processes occurring near the coast (coastal currents, fresh water input from rivers in estuaries, trends in wind and wave regimes, etc.), it was suspected that coastal sea level rise could be significantly different from offshore. However, novel, unexpected results obtained recently by AC and her group, along the world coastal zones indicate that in 90% of the thousand+ studied sites, coastal sea level trends (at distances < 2-3 km from the shoreline) do not differ much from nearby open ocean trends. But this is not always the case. In some instances, higher or lower rates are observed at the coast compared to offshore. Providing long coastal sea level time series worldwide and understanding the causes of the observed coastal sea level trends is an important goal for studying coastal impacts of sea level rise and determining the relative contribution of natural processes and human-induced factors to coastal erosion and shoreline retreat. This will represent invaluable information for decision-making and adaptation purposes.

Since 2020, AC is also one of the three PIs of a **European Research Council (ERC) 'Synergy' project** (named **GRACEFUL**; the other two PIs being Mioara Mandea from CNES and Veronique Dehant from the Royal Observatory of Belgium), whose objective is to study deep Earth processes occurring in the fluid core and at the core-mantle boundary, by analysing in synergy three global observables: the rotation, the internal magnetic field and the gravity field of the Earth. In the context of this project, AC and her team have recently discovered a **6-year cycle in the climate system** that appears to be in phase with the already identified 6-year cycle in the rotation of the Earth and in the internal magnetic field. AC's current research now focusses on the interactions between the deep Earth and the climate system at this particular frequency, and tries to answer the questions : (1) are core processes driving the observed climate oscillations at the 6-year period?, (2) is it is the opposite direction (climate → core)? or (3) are core processes and climate responding independently to external driving mechanisms (e.g., the high-frequency Milankovitch orbital forcing that includes a clear 6-year frequency)? With her co-PIs of this ERC Synergy project, she is currently developing multi-disciplinary collaborations with different groups worldwide to shed light on this (so far unknown) puzzling property of the Earth System.

ANNEX 3: ANNY CAZENAVE - PUBLICATIONS (JANUARY 2025)

265+ 'peer-reviewed' articles; 18 900 citations; H_{index} = 69 (ISI Web of Sciences)

Italics: PhD students and post-docs under A. Cazenave' supervision

1. PUBLICATIONS IN INTERNATIONAL JOURNALS

1. Cazenave A., *Pfeffer J.*, Mandea M., Dehant V. and Gillet N., Why is the Earth system oscillating at a 6-year period? *Surveys in Geophysics,* in press, https://doi.org/10.1007/s10712-024-09874-4, 2025.
2. Cazenave A., Present-day sea level rise and causes; the role of space observations, submitted, *J-GSI,* 2025.
3. *Leclercq L*., Cazenave A. et al., Coastal sea level rise at altimetry-based virtual stations in the Gulf of Mexico, in press, *Advances in Space Research*, 75, 1636-1652, https://doi.org/10.1016/j.asr.2024.11.069, 2025.
4. Bouih M., Barnoud A., Yang C., Storto A., Blazquez A., Lowell W., Fraudeau R., and Cazenave A., Regional sea level budget over 2004-2022, submitted, *Ocean Sciences*, 2025.
5. *Pfeffer J*., Cazenave A. et al., A 6-year cycle in the atmosphere, submitted, *Geophysical Research Letters,* 2025.
6. Peng D., Ng G., Feng L., Cazenave A., and Hill E., Coastal vertical land motion in Southeast Asia derived from combining tide gauge and satellite altimetry observations, *Science of Remote Sensing*, 10, 100176, https://doi.org/10.1016/j.srs.2024.100176, 2024.
7. Ghomsi F. et al., including Cazenave A., Sea level variability in Gulf of Guinea from satellite altimetry, *Scientific Reports*, 14, 1, https://doi.org/10.1038/s41598-024-55170-x, 2024.
8. Le Cozannet G. and Cazenave A, Adaptation to sea level rise in France, *Rendiconti Lincei*. Scienze Fisiche e Naturali, published online 18 March 2024, https://doi.org/10.1007/s12210-024-01225-0, 2024.
9. Cazenave A., *Pfeffer J*., Mandea M. and Dehant V., ESD Ideas: A 6-year oscillation in the whole Earth system? *Earth System Dynamics*, 14, 733–735, https://doi.org/10.5194/esd-14-733-2023, 2023.
10. *Pfeffer, J.*, Cazenave, A., Rosat, S., Moreira, L., Mandea, M. and Dehant, V., A 6-Year Cycle in the Earth System, *Global and Planetary Change*, 229, 104245, http://doi.org/10.1016/j.gloplacha.2023.104245, 2023.
11. Meyssignac B. et al., including Cazenave A., How accurate is accurate enough for measuring sea level rise and variability, *Nature Climate Change*, 13, 796–803, https://doi.org/10.1038/s41558-023-01735-z, 2023.
12. *Pfeffer J.,* Cazenave A., Blazquez A., Decharme B., Munier S. and *Barnoud A*. Assessment of pluri-annual and decadal changes in terrestrial water storage predicted by global hydrological models in comparison with the GRACE satellite gravity mission, *Hydrology and Earth System Sciences*, 27, 3743–3768, https://doi.org/10.5194/hess-27-3743-2023, 2023.
13. *Barnoud, A., Pfeffer, J.*, Cazenave, A**.**, Fraudeau, R., Rousseau, V., and Ablain, M., Revisiting the global mean ocean mass budget over 2005–2020. *Ocean Science*, 19, 321–334, https://doi.org/10.5194/os-19-321-2023, 2023.
14. Chen J., Wilson C., Seo K.W., Cazenave A., Wang S. and Li J., Caspian Sea level change from satellite altimetry and GRACE and GRACE Follow-On gravity measurements, *Remote Sensing*, 15, 3, 703, https://doi.org/10.3390/rs15030703, 2023.
15. Cazenave A. and *Moreira L*., Contemporary sea level changes from global to local scales: a review, *Proc. Royal Society*, 478, 20220049. https://doi.org/10.1098/rspa.2022.0049, 2022.
16. Cazenave A. and the Climate Change Initiative Coastal Sea Level Team, Sea level along the world's coastlines can be measured by a network of virtual altimetry stations, *Nature Communications, Earth and Environment,* 3, 117, https://doi.org/10.1038/s43247-022-00448-z2022, 2022.

17. Chen J., Cazenave A., Dahle C., Llovel W., Panet I., *Pffefer J. and Moreira L.*, Applications and Challenges of GRACE and GRACE Follow-On Satellite Gravimetry, *Surveys in Geophysics*, https://doi.org/10.1007/s10712-021-09685-x, 2022.
18. Han W. et al., including A. Cazenave, Sea level extremes and compounding marine heatwaves in coastal Indonesia, *Nature Communications*, 6410, https://doi.org/10.1038/s41467-022-34003-3, 2022.
19. Hegglin M. I. et al., including Cazenave A., Space-based Earth observations in support of the UNFCCC Paris Agreement, *Frontiers in Environmental Science*, 10, https://doi.org/10.3389/fenvs.2022.941490, 2022.
20. Horwath M., Gutknetch B., Cazenave A., et al., Global sea level budget and ocean mass budget, with focus on advanced data products and uncertainty characterization. *Earth System Science Data*, 14, 411–447, 2022 https://doi.org/10.5194/essd-14-411-2022, 2022.
21. *Barnoud A.* et al., including Cazenave A., Contributions of altimetry and Argo to non-closure of the global mean sea level budget since 2016, published online 26 June 2021, *Geophys. Res. Lett*., https://doi.org/10.1029/2021GL092824, 2021.
22. *Moreira, L.,* Cazenave, A., Barnoud, A. and Chen, J. Sea-level fingerprints due to present-day water mass redistribution in observed sea-level data. *Remote Sens*., 13, 4667. https://doi.org/10.3390/rs13224667, 2021.
23. *Moreira L*., Cazenave A., Palanisamy H., Influence of interannual variability in estimating the rate and acceleration of the global mean sea level, published online 10 Feb. 2021, *Global and Planetary Change*, 199, https://doi.org/10.1016/j.gloplacha.2021.103450, 2021.
24. *Dieng H.B*., Cazenave A., *Gouzenes Y*. and Sow, A., Trends and inter-annual variability of coastal sea level in the Mediterranean Sea: Validation of high-resolution altimetry using tide gauges and models, published online 15 Oct 2021, 68, Issue 8, 3093-3520, *Advances in Space Research*, 2021.
25. Bongarts et al., including Cazenave A., Designing Coastal Adaptation Strategies to Tackle Sea Level Rise, *Frontiers in Marine Sciences*, published online 03 Nov 2021, https://doi.org/10.3389/fmars.2021.740602, 2021.
26. *Pfeffer J.,* Cazenave A. and *Barnoud A.,* Analysis of the interannual variability in satellite gravity solutions: impact of climate modes on water mass displacements across continents and oceans, published online 14 Sept 2021, *Climate Dynamics*, https://doi.org/10.1007/s00382-021-05953-z, 2021.
27. The International Altimetry Team, including Cazenave A., Altimetry for the future: Building on 25 years of progress, *Advances in Space Research*, Volume 68, Issue 2, 15 July 2021, Pages 319-363, https://doi.org/10.1016/j.asr.2021.01.022, 2021.
28. Birol F., F. Léger, M. Passaro, A. Cazenave, F. Niño, F. Calafat, A. Shaw, J.-F. Legeais, *Y. Gouzenes*, C. Schwatke and J. Benveniste. The X-TRACK/ALES multi-mission processing system: new advances in altimetry towards the coast. *Advances in Space Research*, Volume 67, Issue 8, 15 April 2021, Pages 2398-2415, https://doi.org/10.1016/j.asr.2021.01.049, 2021.
29. Mandea M., Dehant V. and Cazenave A., GRACE – gravity data for understanding the deep Earth's interior, *Remote Sensing*, *12*(24), 4186, https://doi.org/10.3390/rs12244186, 2020.
30. Benveniste J. et al., including Cazenave A., Coastal sea level anomalies and associated trends 2 from Jason satellite altimetry over 2002-2018, *Nature Scientific Data*, 7, 357, https://doi.org/10.1038/s41597-020-00694-w, 2020.
31. Trewin B., Cazenave A., Howell S., Huss M., Isensee K.,Palmer M.D., Tarasova O., and Alex Vermeulen A., Headline indicators for global climate monitoring, *Bulletin of the American Meteorological Society,* 1–49, https://doi.org/10.1175/BAMS-D-19-0196.1, 2020.
32. Chen J., Tapley B., Wilson C., Cazenave A., Sea K.W. and Kim J.S., Global ocean mass change from GRACE 1 and GRACE Follow-On, and altimeter and Argo measurements, *Geophys. Res. Lett*., https://doi.org/10.1029/2020GL090656, published online, 3 November 2020.
33. *Gouzenes Y*, Leger F. Cazenave A., Birol F., Almar R., Bonnefond P., Passaro M., Legeais J.F. and Benveniste J., Coastal sea level change at Senetosa (Corsica) during the Jason altimetry missions, 16, 1–18, *Ocean Sciences*, https://doi.org/10.5194/os-16-1-2020, 2020.

34. Cazenave A., Meehl G., Montoya M., Toggweiler J.R., Claudia Wieners C., Climate Change and Impacts on Variability and Interactions, in 'Interacting Climates of Ocean Basins; Observations, Mechanisms, Predictability, and Impacts', Carlos R. Mechoso Editor, Cambridge University Press, 358 pages, ISBN:9781108492706, 2020.
35. Claudet G. et al., including A. Cazenave, A Roadmap for Using the UN Decade of Ocean Science for Sustainable Development in Support of Science, Policy, and Action, *One Earth*, 2, 3-9, https://doi.org/10.1016/j.oneear.2019.10.012, 2019.
36. Ablain et al., including Cazenave A., Uncertainty in satellite estimates of global mean sea-level changes, trend and acceleration, *Earth Syst. Sci. Data*, 11, 1189–1202, https://doi.org/10.5194/essd-11-1189-2019, 2019.
37. *Marti F*., Cazenave A., Birol F., Passaro, M. Leger F., Nino F., Almar R., Benveniste J. and Legeais J.F., Altimetry-based sea level trends along the coasts of western Africa, *Advances in Space Research*, published online may 2019, https://doi.org/10.1016/j.asr.2019.05.033, 2019.
38. Cazenave A., Hamlington B., Horwath M., Barletta V., Benveniste J., Chambers D., Döll P., Hogg A., Legeais J.F., Merrifield M., Meyssignac B., Mitchum G., Nerem S., Pail R., Palanisamy H., Paul F., von Schuckmann K., P. Thompson P., Observational requirements for long-term monitoring of the global mean sea level and its components, Frontiers in Marine Science, 6, 582, https://doi.org/ 10.3389/fmars.2019.00582, 2019.
39. Benveniste J., Cazenave A., Vignudelli S., Fenoglio-Marc L., Shah R., Almar R., Andersen O., Birol F., Bonnefond P., Bouffard J., Calafat F., Cardellach E., Cipollini P., Dufau C., Fernandes J., ., Garrison J., Frappart F., Gommenginger C., Han G., Høyer J. L., Kourafalou V., Le Cozannet G., Leuliette E., Li Z., Loisel H., Madsen K. S., Marcos M., Melet A., Meyssignac B., Pasqual A., Passaro M., Ribo S., Scharroo R., Song T., Speich S., Wilkin J, Woodworth P., Wöppelmann G., Requirements for a Coastal Hazard Observing System, OceanObs'19 Community White Paper, Frontiers in Marine Science, 6, 348, 2019, https://doi.org/10.3389/fmars.2019.00348, 2019.
40. Meyssignac, B., Boyer, T., Zhao, Z., Hakuba, M. Z., Landerer, F. W., Stammer, D., Köhl, A. Kato, S., L'Ecuyer, T., Ablain, M., Abraham, J.P., Blazquez, A., Cazenave, A., Church, J.A., Cowley, R. Cheng, L., Domingues, C.M., Giglio, D., Gouretski, V., Ishii, M., Johnson, G.C., Killick, R.E., Legler, D., Llovel, W., Lyman, J., Palmer, M.D., Piotrowicz, S., Purkey, S.G., Roemmich, D., Roca, R., Savita, A., Schuckmann, K. von, Speich, S. Stephens, G., Wang, G., Wijffels, S.E., Zilberman, N., Measuring Global Ocean Heat Content to estimate the Earth Energy Imbalance. Frontiers in Marine Science, 6, 432, 2019, https://doi.org/10.3389/fmars.2019.00432, 2019.
41. Ponte R., Carson M., Cirano M., Domingues C., Jevrejeva S., Marcos M., Mitchum G., Van de Wal R. S. W., Woodworth P. L., Ablain M., Ardhuin F., Ballu V., Becker M., Benveniste J., Birol F., Bradshaw E., Cazenave A., Demey-Fremaux P., Durand F., Ezer T., Fu L. L., Fukumori I., Gordon K., Gravelle M., Griffies S. M., Han W., Hibbert A., Hughes C. W., Idier D., Kourafalou V. H., Little C. M., Matthews A., Melet A., Merrifield M., Meyssignac B., Minobe S., Penduff T., Picot N., Piecuch C., Ray R. D., Richards L., Santamaria- Gómez A., Stammer D., Staneva J., Testut L., Thompson K., Thompson P.,Vignudelli S., Williams J., Williams S. D. P., Wöppelmann G., Zanna L., Zhang X.: Towards comprehensive observing and modeling systems for monitoring and predicting regional to coastal sea level, OceanObs'19 Community White Paper, Frontiers in Marine Science, 6, 437,2019, https://doi.org/10.3389/fmars.2019.00437, 2019.
42. Cazenave A., Palanisamy H. and Ablain M., Contemporary sea level changes from satellite altimetry: What have we learned? What are the new challenges? *Advances in Space Research*, https://doi.org/10.1016/j.asr.2018.07.017, published online 27 July 2018, 2018.
43. Cazenave A. and the WCRP Global Sea Level Budget Group, Global sea level budget, 1993-present, *Earth System Science Data*, 10, 1551-1590, https://doi.org/10.5194/essd-10-1551-2018, 2018.
44. Xu X.Y., Birol F. and Cazenave A., Evaluation of Coastal Sea Level of Jason-2 Altimetry Offshore Hong Kong,, *Remote Sensing*, 10, 282, https://doi.org/10.3390/rs10020282, 2018.
45. Legeais J.F., Ablain M., Zawadzki L., Zuo H., Johannessen J.A., Scharffenberg M.G., Fenoglio-Marc L., Fernandes J., Andersen O.B., Rudenko S.˙, Cipollini P., Quartly G.D., Passaro M., Cazenave A., Benveniste

J., An improved and homogeneous altimeter sea level record from the ESA Climate Change Initiative, *Earth Syst. Sci. Data*, 10, 281-301, https://doi.org/10.5194/essd-10-281-2018, 2018.

46. Blazquez A., Meyssignac B., Lemoine J.M., Berthier E., Ribes A. and Cazenave A., Exploring the uncertainty in GRACE estimates of the mass redistributions at the Earth' surface. Implications for the global water and sea level budgets, *Geophysical Journal International*, 215(1), 415-430, https://doi.org/10.1093/gji/ggy293, 2018.
47. Cazenave A. and Palanisamy H., Sea level and Future Earth, in "Global Change and Future Earth", Cambridge University Press, The Geoscience perspective, T. Beer et al. edts, Cambridge University Press, https://doi.org/10.1017/9781316761489, 2018.
48. Quartly G.D., Legeais J.F., Ablain M., Zawadzki L., Fernandes J., Rudenko S., Carrère L., García P.N., Cipollini P., Andersen O.B., Poisson J.C., Sabrina Mbajon Njiche S.M., Cazenave A. and Benveniste J., A new phase in the production of quality-controlled sea level data, *Earth Syst. Sci. Data*, 9, 557–572, https://doi.org/10.5194/essd-9-557-2017, 2017.
49. Cazenave A., Le Cozannet G., Benveniste J., Woodworth P. and Champollion N., Monitoring the change of coastal zones from space*, EOS*, *98,* https://doi.org/10.1029/2017EO085581. Published 2 November 2017.
50. Nerem R., Cazenave A., Church J., No chaos in the satellite-data record*, Nature*, 549, 7672, 334, 2017.
51. *Dieng H*., Cazenave A., Meyssignac B. and Ablain M., New estimate of the current rate of sea level rise from a sea level budget approach, *Geophys. Res. Lett*., 44, https://doi.org/10.1002/2017GL073308, 2017.
52. *Dieng H.,* Cazenave A., Meyssignac B., von Schuckmann K. and Palanisamy H., Sea and land surface temperatures, ocean heat content Earth's energy imbalance and net radiative forcing, *International Journal of Climatology*, https://doi.org/10.1002/joc.4996, 2017.
53. Nerem S., Ablain M., Cazenave A., Church J. and Leuliette E., A 25-year long satellite altimetry-based global mean sea level record: Closure of the sea level budget and missing components, CRC book on "Applications of satellite altimetry over oceans and land surfaces", Stammer and Cazenave edts., CRC Press, Taylor and Francis, ISBN 978-1-4987-4345-7, 2017.
54. Chambers D., Cazenave A., Champollion N., H. Dieng, W. Llovel, R. Forsberg, K. von Schuckmann and Y. Wada, Evaluation of the global mean sea level budget between 1993 and 2015, *Surveys in Geophysics*, 38, 309-327, https://doi.org/10.1007/s10712-016-9381-3, 2017.
55. *Carret A*., Johannessen J., Andersen O., Ablain M., Prandi P., Blazquez A. and Cazenave A., Arctic sea level during the altimetry era, *Surveys in Geophysics*, 38, 251-277, https://doi.org/10.1007/s10712-016-9390-2, 2017.
56. Ablain M., Legeais J.F., Prandi P., Fenoglio-Marc L., Marcos M., Benveniste J. and Cazenave A., Altimetry-based sea level at global and regional scales, *Surveys in Geophysics*, 38, 7-31, https://doi.org/10.1007/s10712-016-9389-8, 2017.
57. von Schukmann K., Palmer M.D., Trenberth K.E., Cazenave A., D. Chambers, Champollion N. et al., Earth's energy imbalance: an imperative for monitoring, *Nature Climate Change*, 26, 138-144, 2016.
58. Lopez T., Antoine R., Kerr Y., Darrozes J., Rabinowicz M., Ramillien G., Cazenave A., Genthon P., Subsurface hydrology in the Lake Chad basin from space-based and hydrogeological data, *Surveys in Geophysics*, https://doi.org/10.1007/s10712-016-9363-5, 2016.
59. Famiglietti J., Cazenave A., A. Eicker, J. T. Reager, M. Rodell and I. Velicogna, Satellites Provide the 'Big Picture' for Global Hydrology, *Science*, vol 349, issue 6249, 684-685, http://dx.doi.org/10.1126/science.aac9238, 2015.
60. *Dieng H*., Champollion N., Cazenave A., Wada Y., Schrama E. and Meyssignac B., Total land water storage change over 2003-2013 estimated from a global mass budget approach, *Environmental Research Letters*, 10, 124010, https://doi.org/10.1088/1748-9326/10/12/124010, 2015.
61. Le Cozannet G., Rohmer J., Cazenave A., et al., Evaluating uncertainties of future marine flooding occurrence as sea level rises, *Environmental Modelling*, 73, 44-56, http://dx.doi.org/10.13140/RG.2.1.4463.4727, 2015.

62. *Dieng H.*, Cazenave A., von Shuckmann K., Ablain M. and Meyssignac B., Sea level budget over 2005-2013: missing contributions and data errors, *Ocean Science*, 11, 1-14, https://doi.org/10.5194/osd-11-1-2015, 2015.
63. *Palanisamy H.,* Meyssignac B., Cazenave A., Delcroix T., Is the anthropogenic sea level fingerprint already detectable in the Pacific Ocean? *Environmental Research Letters*, 10, 124010, https://doi.org/10.1088/1748-9326/10/12/124010, 2015.
64. *Dieng H.*, Palanisamy H., Cazenave A., Meyssignac B. and von Schuckmann K., The sea level budget since 2003: inference on the deep ocean heat content, *Surveys in Geophysics*, 36, 1, https://doi.org/10.1007/s10712-015-9314-6, 2015.
65. Ablain M., Cazenave A., et al., Improved sea level record over the satellite altimetry era (1993-2010) from the Climate Change Initiative Project, *Ocean Sciences*,11, 2029-2071, https://doi.org/10.5194/osd-11-2029-2014, 2015.
66. Cazenave A., Sea level rise, *Oxford Bibliographies*, 2015.
67. *Palanisamy H.*, Cazenave A., Delcroix T. and Meyssignac B., Spatial trend patterns in Pacific Ocean sea level during the altimetry era: the contribution of thermocline depth change and internal climate variability, *Ocean Dynamics*, https://doi.org/10.1007/s10236-014-0805-7, 2015.
68. *Palanisamy H.*, Cazenave A., Henry O., Prandi P., and Meyssignac B., Sea level variations measured by the new altimetry mission SARAL-AltiKa and its validation based on spatial patterns and temporal curves using Jason-2, steric sea level, ocean mass and tide gauge data, *Marine Geodesy*, 238, 339-353, https://doi.org/10.1080/01490419.2014.1000469, 2015.
69. Cazenave A., Dieng H., Meyssignac B., von Schuckmann K., Decharme B. and Berthier E., The rate of sea level rise, *Nature Climate Change*, vol 4, 358-361, https://doi.org/10.1038/NCLIMATE2159, 2014.
70. Cazenave A. Anthropogenic global warming threatens world cultural heritage, *Environ. Res. Lett.*, 9, https://doi.org/10.1088/1748-9326/9/5/051001, 2014.
71. Cazenave A. and Le Cozannet G., Sea level rise and coastal impacts, *Earth's Future*, vol2, issue2, 15-34, https://doi.org/10.1002/2013EF000188, 2014.
72. Chevalier L., B. Laignel, N. Massei, S. Munier, M. Becker, I. Turki, A. Coynel and A., Cazenave, Hydrological variability of major French rivers over recent decades, assessed from gauging station and GRACE observations, *Hydrological Sciences Journal*, 59:10, 1844-1855, https://doi.org/10.1080/02626667.2013.866708, 2014.
73. Church, J. A., P. U. Clark, A. Cazenave, J. M. Gregory, S. Jevrejeva, A. Levermann, M. A. Merrifield, G. A. Milne, R. S. Nerem, P. D. Nunn, A. J. Payne, W. T. Pfeffer, D. Stammer and A. S. Unnikrishnan, 2013: Sea Level Change. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T. F., D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P. M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2014.
74. *Palanisamy H.,* Cazenave A., Meyssignac B., Woppelmann G. and Soudarin L., Regional sea level variability, total relative sea level rise and its impacts on islands and coastal zones of Indian Ocean over the last sixty years, *Global Planetary Change*, 116, 54-67, http://dx.doi.org/10.1016/j.gloplacha.2014.02.001, 2014.
75. *Dieng H.,* Cazenave A, Messignac B., Henry O., von Schuckmann K. and Lemoine J.M., Effect of La Niña on the global mean sea level and north Pacific ocean mass over 2005-2011, *J. Geodetic Sciences*, 4, 19-27, 2014.
76. *Henry O*., Ablain M., Meyssignac B., Cazenave A., Masters D., Nerem S., Leuliette E. and Garric G., Investigating and reducing differences between the satellite altimetry-based global mean sea level time series provided by different processing groups, *J. of Geodesy*, 88:351–361, https://doi.org/10.1007/s00190-013-0687-3, 2014.
77. Stammer D., Cazenave A., Ponte R. and Tamisiea M., Contemporary regional sea level changes, *Annual Review Marine Sciences*, 5, 21–46, http://dx.doi.org/10.1146/annurev-marine-121211-172406, 2013.
78. Church J. Clark P., Cazenave A. et al, Sea level rise by 2100, *Science,* Vol. 342 Issue 6165, 1445-1445, https://doi.org/10.1126/science.342.6165.1445-a, 2013.

79. Le Cozannet G., Garcin M., Petitjean L., Cazenave A., Becker M., Meyssignac B., Walker P., Devilliers C., Lebrun O., Lecacheux S., Baills A., Bulteau T., Yates M., Wöppelmann G., Exploring the relation between sea level rise and shoreline erosion using reconstructions: an example in French Polynesia, *J. Coastal Research*, 65, https://doi.org/*10.2112/SI65-361.1*, 2013.
80. Woppelmann G., Le Cozannet G., de Michele M., Raucoules D., Cazenave A., Garcin M, Hanson S, Marcos M. and Santamaría-Gómez A. Is land subsidence increasing the exposure to sea level rise in Alexandria, Egypt? *Geophys. Res. Lett*., vol 40, 1–5, https://doi.org/10.1002/grl.50568, 2013.
81. Meyssignac B., Lemoine J.M., Cheng M., Cazenave A., Gegout P. and Maisongrande P., Interannual variations in degree-two Earth's gravity coefficients C2,0, C2,2 and S2,2 reveal large-scale mass transfers of climatic origin, *Geophys. Res. Lett*., 40, 1-6, https://doi.org/10.1002/grl.50772, 2013.
82. Peng D., Palanisamy H., Cazenave A. and Meyssignac B., Sea level change and variability in the South China Sea over 1950-2009, *Marine Geodesy*, 36:2,164-182, https://doi.org/10.1080/01490419.2013.771595, 2013.
83. Hollmann R. et al. (including Cazenave), The ESA Climate Change Initiative: satellite data records for essential climate variables *Bull. American Meteo. Soc*., https://doi.org/10.1175/BAMS-D-11-00254.1, online publication March 2013.
84. Cazenave A., O. Henry, S. Munier, B. Meyssignac, T. Delcroix, W. Llovel, H. Palanisamy and M. Becker, ENSO influence on the global mean sea level over 1993-2010, *Marine Geodesy*, 35(S1), 82–97, https://dx.doi.org/10.1080/01490419.2012.718209, 2012.
85. Rahmstorf S., Foster G. and Cazenave A., Comparing climate projections to observations: an update; *Environmental Res. Lett*., 7, 044035, https://doi.org/10.1088/1748-9326/7/4/044035, 2012.
86. Prandi P., Ablain M. Cazenave A. and Picot N., Sea level variability in the Arctic Ocean observed by satellite altimetry, Ocean Science Discussions, *Ocean Sciences*, 9 (4), 2375–2401, https://doi.org/10.5194/osd-9-2375-2012, 2012.
87. Munier S., Palanisamy H., Maisongrande P., Cazenave A. and Wood E., Global runoff over 1993-2009 estimated from coupled Land-Ocean-Atmosphere water budgets and its relation with climate, *Hydrol. Earth Sys. Sci*., 16, 3647-3658, https://doi.org/10.5194/hess-16-3647-2012, 2012.
88. Henry O., P. Prandi, W. Llovel, A. Cazenave, S. Jevrejeva, D. Stammer, B. Meyssignac, N. Koldunov, Sea level variations since 1950 along the coasts of the Arctic Ocean *J. Geophys. Res*.,117, C06023, https://doi.org/10.1029/2011JC007706, 2012.
89. Meyssignac B. and Cazenave A., Sea level: a review of present-day and recent-past sea level change and variability, *J. Geodyn*., 58, 96-109, 2012.
90. Meyssignac B., Salas-Melia D, Becker M, Llovel W. and Cazenave A., Spatial trend patterns in observed sea level: internal variability and/or anthropogenic signature ? *Climate of the Past*, 8, 787-802, https://doi.org/10.5194/cp-8-787-2012, 2012.
91. Meyssignac B., Becker M., Llovel W., Cazenave A. An assessment of two-dimensional past sea level reconstructions over 1950 -2009 based on tide gauge data and different input sea level grids, *Surveys in Geophysics*, https://doi.org/10.1007/s10712-011-9171-x, 2012.
92. Prandi P. Ablain M., Cazenave A. and Picot N., A new estimation of mean sea level in the Arctic Ocean from satellite altimetry, *Marine Geodesy*, 35(S1), 61-81, http://dx.doi.org/10.1080/01490419.2012.718222, 2012.
93. *Becker M., Meyssignac B., Llovel W.*, Cazenave A. and Delcroix T., Sea level variations at Tropical Pacific Islands during 1950-2009. *Global and Planetary Change,* 80/81, 85-98, https://doi.org/10.1016/j.gloplacha.2011.09.004, 2012.
94. *Palanisamy H., Becker M., Meyssignac B*. and Cazenave A., Regional Sea Level Change and Variability in the Caribbean Sea since 1950, *Int. J. Geosci.*, 2(2), 125-133, https://doi.org/10.2478/v10156-011-0029-4, 2012.
95. Cazenave A. and Remy F., Sea level and Climate: observation and causes of changes, *Wiley Interdisciplinary Reviews: Climate Change*, vol.2, 647-662, https://doi.org/10.1002/wcc.139, 2011.

96. *Llovel W*., Meyssignac B. and Cazenave A., Steric sea level variations over 2004-2010 as a function of region and depth; Inference on the ocean mass component in the North Atlantic, *Geophys. Res. Lett*., 38, L15608, https://doi.org/10.1029/2011GL047411, 2011.
97. Cretaux J.F. et al., including Cazenave A., SOLS: a lake data base to monitor in near real time water level and storage variations from remote sensing data, *Advances Space Research*, 47, 9, 1497-1507, https://doi.org/10.1016/j.asr.2011.01.004, 2011.
98. Biancamaria S., Cazenave A., Mognard N., LLovel W. and Frappart F.,Satellite-based high latitudes snow volume trend, variability and contribution to sea level over 1989/2006, *Global and Planet. Change*, 75, 99-107, https://doi.org/10.1016/j.gloplacha2010.10.011, 2011.
99. *Becker M*., Meyssignac B., Xavier L., Cazenave A., Alkama R. and Decharme B., Past terrestrial water storage (1980-2008) in the Amazon Basin reconstructed from GRACE and in situ river gauging data, *Hydrol. Earth Syst. Sci*, 15, 533-546, https://doi.org/10.5194/hess-15-533, 2011.
100. *Llovel W*., *Becker M*., Cazenave A., Jevrejeva S., Alkama R., Decharme B., Douville H., Ablain M. and Beckley B., Terrestrial waters and sea level variations on interannual time scale, *Global Planet. Change*, 75, 76-82, https://doi.org/10.1016/j.gloplacha2010.10.008, 2011.
101. *Meyssignac B*., Calafat F., Somot S., Rupolo V., Stocchi P., Llovel W. and Cazenave A., Two-dimensional reconstruction of the Mediterranean sea level over 1970 - 2006 from tide gauge data and regional ocean circulation model outputs, *Global Planet. Change*, https://doi.org/10.1016/j.gloplacha.2011.03.002, Published on line, 2011.
102. Nicholls R. and Cazenave A., Sea level change and the impacts in coastal zones, *Science*, 328, 1517-1520, https://doi.org/10.1126/science.1185782, 2010.
103. Cazenave A. and Chen J., Time-variable gravity from space and present-day mass redistribution in the Earth system, *Earth Planet. Sci. Lett*., 298, 263-274, https://doi.org/10.1016/j.epsl.2010.07.035, 2010.
104. Cazenave A. and W. Llovel, Contemporary sea level rise, *Annual Rev. of Marine Sciences*, 2, 145-173, https://doi.org/10.1146/annurev-marine-120308-081105, 2010.
105. *Llovel W*., Guinehut S. and Cazenave A., Regional variability in sea level over 2002 – 2009 based on satellite altimetry, Argo float data and GRACE ocean mass, *Ocean Dynamics*, 60, 1193-1204, https://doi.org/10.1007/s10236-010-0324-0, 2010.
106. Milly P.C.D., Cazenave A., Famiglietti J., Gornitz V., Laval K., Lettenmaier D., Sahagian D., Wahr J. and Wilson C. Terrestrial water storage contributions to sea level rise and variability, Proceedings of the WCRP workshop 'Understanding sea level rise and variability', eds. J. Church, P. Woodworth, T. Aarup and S. Wilson et al., Blackwell Publishing, Inc., 2010.
107. Roemmich D., J. Willis, J. Gilson, D. Stammer, A. Koehl, T. Yemenis, D. P. Chambers, F. Landerer, J. Marotzke, T. Suzuki, J. Church, A. Cazenave and P. Y Letraon, Global Ocean Warming and Sea Level Rise Proceedings of the WCRP workshop 'Understanding sea level rise and variability', eds. J. Church, P. Woodworth, T. Aarup and S. Wilson et al., Blackwell Publishing, Inc., 2010.
108. Alkama R., Decharme B., Douville H., Becker M., Cazenave A., Sheffield J., Voldoire A., Tyteca S., Le Moigne P., Global evaluation of the ISBA-TRIP continental hydrologic system; Part 1: a two-fold constraint using GRACE terrestrial water storage estimates and in situ river discharges *J. Hydrometeorology*, 11, 583-600, https://doi.org/10.1175/2010JHM1211.1, 2010.
109. Decharme B., Alkama R., Douville H., *Becker M*., Cazenave A., Sheffield J., Voldoire A., Tyteca S., Le Moigne P., Global evaluation of the ISBA-TRIP continental hydrologic system using GRACE; Part 2: results, *J. Hydrometeorology*, 11, 601- 617, https://doi.org/10.1175/2010JHM1212.1, 2010.
110. Cazenave A., Chambers D., Cippolini P., Fu L.L., Hurell J., Merrifield M., Nerem S., Plag H.P., Shum C.K. and Willis J., Sea level change: global and regional trends, plenary paper, Proceedings of the OCEANOBS09 workshop, ESA publication, 2010.
111. *Llovel W*., M. Becker, Cazenave A. and Crétaux J.F., Contribution of land water storage change to global mean sea level from GRACE and satellite altimetry, *C.R. Geosciences*, 342, 179-188, https://doi.org/10.1016/j.crte.2009.12.004, 2010.
112. *Xavier L*., Becker M., A. Cazenave, Longuevergne L., Llovel W. and O. Rotuno, Interannual variability in water storage over 2003-2008 in the Amazon Basin from GRACE space gravimetry, in situ river level

and precipitation data, *Remote Sensing of Environment*, 114, 1629-1637, http://dx.doi.org/10.1016/j.rse.2010.02.005, 2010.
113. *Becker M.,* Cazenave A., Llovel W., and A. Guentner, Recent hydrological behaviour of the East African lakes region from GRACE and satellite altimetry, *C.R. Geosciences*, 342, 223-233, 2010.
114. *Prandi P.,* Cazenave A. and Becker M., Is coastal mean sea level rising faster than the global mean? A comparison between tide gauges and satellite altimetry over 1993-2007, *Geophys. Res. Lett*.,36, https://doi.org/10.1029/2008GL036564, 2009.
115. Cazenave A., Guinehut S., Ramillien G., *Llovel W*., DoMinh K., Ablain M., Larnicol G. and Lombard A., Sea level budget over 2003-2008; a reevalution from satellite altimetry, GRACE and Argo data, *Global and Planetary Change*, https://doi.org/10.1016/j/gloplacha.2008.10.004, 2009.
116. Ablain M., Cazenave A., DoMinh K, Guinehut S., Llovel W., Lombard A. and Valladeau G., A new assessment of global mean sea level from altimeters highlights a reduction of global slope from 2005 to 2008 in agreement with in-situ measurements, *Ocean Sciences*, 5, 193-201, http://dx.doi.org/10.5194/osd-6-31-2009, 2009.
117. *Llovel W*., Cazenave A., Berge-Nguyen M. and Rogel P., Past sea level reconstruction (1950-2000) using the OPA/NEMO global ocean circulation model, tide gauge and satellite altimetry data, *Climate of the Past,* 5, 1-11, http://dx.doi.org/10.5194/cpd-5-1109-2009, 2009.
118. *Ramillien G*., Bouhours S., Lombard A., Cazenave A., Flechtner F. and Schmidt R., Land water contributions from GRACE to sea level rise over 2002-2006, *Global and Planetary Change*, 60, 381-392, https://doi.org/10.1002/jgrc.20058, 2008.
119. Berge-Nguyen M. Cazenave A., *Lombard A., Llovel W.* and Cretaux J.F., Reconstruction of past decades sea level using tide gauge, altimetry and in situ hydrographic data*, Global and Planetary Change*, 62, 1-13, https://doi.org/10.1016/j.gloplacha.2007.11.007, 2008.
120. Cazenave A., A. *Lombard and W. Llovel.*, Present-day sea level rise: a synthesis, *C.R. Geosciences*, https://doi.org/10.1016/j-crte-2008.07.008, 2008.
121. Nerem R.S., A. Cazenave, D.P. Chambers, L.L. Fu, E.W. Leuliette and G.T. Mitchum, Comment on 'Estimating future sea level change from past records' by Nils-Axel Morner, *Global and Planetary Change*, 55, 358-360, https://doi.org/10.1016/j.gloplacha.2006.08.002, 2007.
122. *Garcia D*., A. Lombard, G. Ramillien and A. Cazenave, Steric sea level variations inferred from combined Topex/Poseidon altimetry and GRACE gravimetry, *PAGEOPH*, 164, 721-731, https://doi.org/10.1007/s00024-007-0182y, 2007.
123. *Ngo-Duc T.*, Laval. K., Polcher J., Ramillien G. and A. Cazenave, Validation of the land water storage simulated by Organising Carbon and Hydrology in Dynamic Ecosystems (ORCHIDEE) with Gravity Recovery and Climate Experiment (GRACE) data, *Water Res. Res*, 43, W04427, https://doi.org/10.1029/2006WR004941, 2007.
124. *Lombard A.*, Garcia D., Cazenave A. and *Ramillien G*., Fletchner, R. Biancale and M. Ishii, Estimation of steric sea level variations from combined GRACE and satellite altimetry data, *Earth Planet. Sci. Lett*., 254, 194-202, https://doi.org/10.1016/j.epsl.2006.11.035, 2007.
125. Alsdorf, D., L.L. Fu, N. Mognard, A. Cazenave, E. Rodriguez, D. Chelton and D. Lettemaier, Measuring global oceans and terrestrial fresh water from space, *EOS*, Transactions, AGU, v88, n24, p253, http://dx.doi.org/10.1029/2007EO240002, 2007.
126. Bindoff N., Willebrand J., Artale V., Cazenave A., Gregory J., Gulev S., Hanawa K., Le Quéré C., Levitus S., Nojiri Y., Shum C.K., Talley L., Unnikrishnan A., Observations: oceanic climate and sea level. In: Climate change 2007: The physical Science Basis. Contribution of Working Group I to the Fourth Assessment report of the Intergouvernmental Panel on Climate Change [Solomon S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, UK, and New York, USA., pp 385-428, 2007.
127. Rahmstorf S., Cazenave A., Church J.A., Hansen J., Keeling R., Parker D. and Somerville R., Recent climate observations compared to projections, *Science*, vol 316, 709, https://doi.org/10.1126/science.1136843, 2007.

128.*Zakharova E*., A. Kouraev and A. Cazenave, Amazon river discharge estimated from the Topex/Poseidon altimetry, *C.R. Geosciences*, 338, 188-196, 2006.
129.Schmidt R., Flechtner F., Reigber Ch., Schwintzer P., Gunter A., Doll P., Ramillien G., Cazenave A., Petrovic S., Jochman H. and Wunsch J., GRACE observations of changes in continental water storage, *Global and Planetary Change*, Vol 50/1-2, 112-126, https://doi.org/10.1016/j.gloplacha.2004.11.018, 2006.
130.*Enjolras V*., P. Vincent, J.C. Souyris, E. Rodriguez and A. Cazenave, Performances study of interferometric radar altimeter: from the instrument to the global definition mission, *Sensors*, 6 (3), 164-192, https://doi.org/10.3390/s6030164, 2006.
131.*Lombard A*., A. Cazenave, C. Cabanes, S. Guinehut and P.Y. Le Traon, Perspectives on present-day sea level change, *Ocean Dynamics*, 56, 445-451, https://doi.org/10.10007/s10236-005-0046-x, 2006.
132.*Ramillien G*., Frappart F., Guntner A., Ngo-Duc T. and Cazenave A., Mapping time variations of evapotranspiration rate from GRACE satellite gravimetry, *Water Resources Research*, 42, W10403, https://doi.org/10.1029/2005WR004331, 2006.
133.*Frappart F*., Dominh K., Lhermitte J., Ramilllien G., Cazenave A. and LeToan T., Water volume change in the lower MEKONG basin from satellite altimetry and other remote sensing data, *Geophys. J. Int*., 167, 570-584, https://doi.org/10.1111/j.1365-246X.2006.03184.x, 2006.
134.*Ramillien G., Lombard A.,* Cazenave A., E. Ivins, M. Llubes, F. Remy and R. Biancale, Interannual variations of ice sheets mass balance from GRACE and sea level, *Global and Planetary Change*, 53, 198-208, https://doi.org/10.1016/j.gloplacha.2006.06.003, 2006.
135.Nerem S., Leuliette E. and Cazenave A., Present-day sea level change, *C.R. Geosciences*, 338, issue 14-15, 1077-1083, https://doi.org/10.1016/j.crte.2006.09.001, 2006.
136.Cazenave A. and Boucher C., Observing the Earth from space, *C.R. Geosciences*, 338, issue 14-15, 943-948, 2006.
137.Cazenave A., How fast are the ice sheets melting?, *Science,* 314, 1250-1252, https://doi.org/10.1126/science.1133325, 2006.
138.Tiwari V.M., Cabanes C., DoMinh K. and Cazenave A., Sea level in the Indian ocean from Topex/Poseidon altimetry and tide gauges, pp 150-168, *Oceanology*, H.K. Gupta editor, University Press, Hyderabad, 2005.
139.Kouraev A.V., Papa F., Mognard N.M., Buharizin P.I., Cazenave A., Crétaux J-F., Dozortseva J., Remy F., Synergy of active and passive satellite microwave data for the study of first-year sea ice in the Caspian and Aral seas. *IEEE Transactions on Geoscience and Remote Sensing* (TGARS), https://doi.org/10.1109/TGRS.2004.835307, 2005.
140.Crétaux J-F., Kouraev A.V., Bergé-Nguyen M., Cazenave A., Papa F., Satellite altimetry for monitoring lake level changes, in 'Transboundary Water Resources: Strategies for Regional Security and Ecological Stability', H. Vogtman and Dobretsov (eds), NATO Sciences Series, Springer, 141-146, https://doi.org/10.1007/1-4020-3082-7_12, 2005.
141.Crétaux J-F, Kouraev A.V., Papa F., Bergé Nguyen M., Cazenave A., Aladin N.V., and Plotnikov I.S., Evolution of Sea Level of the Big Aral Sea from Satellite Altimetry and Its Implications for Water Balance, *Journal of Great Lakes Research,* 31, 520-534, https://doi.org/10.1016/S0380-1330(05)70281-1, 2005.
142.*Lombard A.,* Cazenave A., Le Traon P.Y. and Ishii M., Contribution of thermal expansion to present-day sea level rise revisited, *Global and Planetary Change*, 47, 1-16, https://doi.org/10.1016/j.gloplacha.2004.11.016, 2005.
143.*Lombard A*., Cazenave A., Dominh K., Cabanes C. and R.S. Nerem, Thermosteric sea level rise for the past 50 years; comparison with tide gauges and inference on water mass contribution, *Global and Planetary Change*, 48, 303-312, https://doi.org/10.1016/j.gloplacha.2005.02.007, 2005.
144.*Ngo-Duc T*., Laval K., Polcher Y and Cazenave A., Analyses of the contribution of continental water to sea level variations during the 1997-1998 ENSO event; Comparison between the AMIP simulations and the Topex/Poseidon satellite data., *J. Geophys. Res*., Vol.110, DO9103, https://doi.org/10.1029/2004JD004940, 2005.

145. Evans D., Alpers W., Cazenave A., Elachi A., Farr T., Glackin D., Holt B., Jones L., Liu W.T., McCandless W., Menard Y., Moore R. and Njoku E., Seasat- A 25-year legacy of success, *Remote Sensing of Environment*, 94, 384-404, https://doi.org/10.1016/j.rse.2004.09.011, 2005.
146. *Frappart F.*, F. Seyler, J.M. Martinez, J. Leon and A. Cazenave, Floodplain water storage in the Negro River basin estimated from microwave remote sensing of inundation area and water levels, *Remote Sensing of Environment*, 99, 4, 387-399, https://doi.org/10.1016/j.rse.2005.08.016, 2005.
147. Cazenave A., Volcanoes and sea level, *Nature*, 438,7064, 35-36, https://doi.org/10.1038/438035a, 2005.
148. *Frappart F.*, Calmant S., Cauhopé M., Seyler F. and Cazenave A., Preliminary results of ENVISAT RA-2-derived water levels validation over the Amazon basin, *Remote Sensing of Environment*, 100, 252-264, https://doi.org/10.1016/j.rse.2005.10.027, 2006.
149. *Frappart F.*, G. Ramillien, S. Biancamaria, N. Mognard-Campbell and A. Cazenave, Evolution of high-latitude snow mass derived from the GRACE gravimetry mission (2002-2004), *Geophys. Res. Lett*, 33, L02501, https://doi.org/10.1029/2005GL024778, 2006.
150. *Ngo-Duc T.*, Laval K., Polcher Y., Lombard A. and Cazenave A., Effects of land water storage on the global mean sea level over the last half century, *Geophys. Res. Lett.*, Vol.32, L09704, https://doi.org/10.1019/2005GL022719, 2005.
151. *Ramillien G.,* Frappart F., Cazenave A. and Guentner A., Change in land water storage from 2 years of GRACE satellite data, *Earth and Planetary Science Letters*, 235, 283-301, https://doi.org/10.1016/j.epsl.2005.04.005, 2005.
152. Aladin N.V., Crétaux J-F., Plotnikov I.S., Kouraev A.V., Smurov A.O., Cazenave A., Egorov A.N., Papa F., Modern hydro-biological state of the Small Aral Sea, *Environmetric*, 16, 4, 375-392, https://doi.org/10.1002/env.709, 2005.
153. Kouraev A.V., Papa F., Mognard N.M., Buharizin P.I., Cazenave A., Crétaux J-F., Dozortseva J., Remy F., Sea ice cover in the Caspian and Aral seas from historical and satellite data*, Journal of Marine System*, 47, 89-100, https://doi.org/10.1016/j.jmarsys.2003.12.011, 2004.
154. Cazenave A., Milly, P.C.D., Douville H., Beneveniste J., Lettenmaier D. and Kosuth P., International workshop examines the role of space techniques to measure spatio-temporal change in terrestrial waters, *EOS*, AGU Trans., vol 85, number 6, 10 February 2004.
155. Kouraev A., Sakharova E. A., Samain O., Mognard-Campbell N. and Cazenave A., Ob' river discharge from Topex/Poseidon satellite altimetry, *Remote Sensing of Environment*, 93, 238-245, https://doi.org/10.1016/j.rse.2004.07.007, 2004.
156. *Ramillien G,* A. Cazenave, O. Brunau, Global time variations of hydrological signals from GRACE satellite gravimetry, *Geophys. J. Int.*, 158, 813-826, https://doi.org/10.1111/j.1365-246X.2004.02328.x, 2004.
157. Tiwari V., Cabanes C, Dominh K and Cazenave A., Correlation of interannual sea level variations in the Indian ocean from Topex/Poseidon altimetry, temperature data and tide gauges with ENSO, *Global and Planetary Change*, 43, 183-196, https://doi.org/10.1016/j.gloplacha.2004.08.001, 2004.
158. Cazenave A and R S Nerem, Present-Day sea level change: observations and causes, *Review of Geophysics*, 42, RG3001, https://doi.org/8755-1209/04/2003RG000139, 2004.
159. Cazenave A., Gennero M.C. and DoMinh K., Present-day sea level rise: from satellite and in situ observations to physical causes, in Satellite Altimetry for geodesy, geophysics and oceanography, International Association of Geodesy Symposia, vol. 126, F. Sanso Ed.., Springer-Verlag, Berlin, pp.23-33, 2004.
160. *Maheu C.*, Cazenave A. and Mechoso R., Water level fluctuations in the La Plata basin South America) from Topex/Poseidon altimetry, *Geophys. Res. Lett.*, 30, 3, https://doi.org/10.1029/2002GL016033, 2003.
161. Cazenave A., *Cabanes C.*, Dominh K. Gennero M.C. and Le Provost C., Present-day sea level change, in Earth gravity field from space from sensors to Earth Sciences, G. Beutler, R. Rummel, M.R. Drinkwater and R. von Steiger, Eds., Space Sciences Series, 108,131-144, Kluwer Academic Publishers, Dordrecht, The Netherlands, 2003.

162. Kouraev A., Papa F., Buharizin.P, Cazenave A., Cretaux, J.F., Dozortseva J. and Remy F., Ice cover variability in the Caspian and Aral seas from active and passive microwave data, *Polar Research*., 22 (1), 43-50, https://doi.org/10.1111/j.1751-8369.2003.tb00094.x, 2003.
163. Milly P.C.D., A. Cazenave and M.C. Gennero, Contribution of climate-driven change in continental water storage to recent sea level rise, *PNAS Proceedings National Academy Science*, Vol 100, n° 23, 13158-13161, https://doi.org/10.1073/pnas.2134014100, 2003.
164. *Mercier F*., Cazenave A. and C Maheu, Interannual lake level fluctuations in Africa from Topex-Poseidon: connections with ocean-atmosphere interactions over the Indian ocean, *Global and Planet. Change*, 32, 141-163, https://doi.org/10.1016/S0921-8181(01)00139-4, 2002.
165. *Calmant S*., Berge-Nguyen M. and Cazenave A., Global seafloor topography from a least-squares inversion of altimetry-based high-resolution mean sea surface and sparse shipboard soundings, *Geophys. J. Int*., 151, 795-808, https://doi.org/10.1046/j.1365-246X.2002.01802.x, 2002.
166. Cazenave A., Bonnefond P., Dominh K. and Mercier F., Sea level changes in the Mediterranean and Black seas from satellite altimetry, *Global and Planet. Change*, 34, 59-86, https://doi.org/10.1016/S0921-8181(02)00106-6, 2002.
167. Cazenave A. and S.T. Nerem, Redistributing Earth's mass, *Science*, 297, 783-784, https://doi.org/10.1126/science.1074593, 2002.
168. Cretaux J.F., Soudarin L., Davidson F., Gennero M.C., Berge-Nguyen M. and Cazenave A., Seasonal and interannual geocenter motion from SLR and DORIS measurements: Comparison with surface loading data, *J. Geophys. Res*., 107, B12, 2374, https://doi.org/10.1029/2002JB001820, 2002.
169. Cazenave A. and Royer J.Y., Application of satellite altimetry to marine geophysics, in 'Satellite altimetry and Earth Sciences ; A handbook of techniques and applications', Ed. L.L. Fu and A. Cazenave, Academic Press, San Diego, USA, 2001.
170. *Mangiarotti S*., Cazenave A., Soudarin L. and Cretaux J.F., Annual vertical crustal motions predicted from surface mass redistribution and observed by space geodesy, *J. Geophys. Res*., 106, 4277-4291, https://doi.org/10.1029/2000JB900347, 2001.
171. *Cabanes C.*, Cazenave A. and Le Provost C., Sea level changes from Topex-Poseidon Altimetry for 1993-1999, and warming of the southern oceans, *Geophys. Res. Lett*., 28,9-12, https://doi.org/10.1029/2000GL011962, 2001.
172. Cazenave A., *Cabanes C*., Dominh K. and Mangiarotti S., Recent sea level change in the Mediterranean sea revealed by satellite altimetry, *Geophys. Res. Lett*., 28,1607-1610, https://doi.org/10.1029/2000GL012628, 2001.
173. *Oliveira Campos I.*, Mercier F., C. Maheu, Cochonneau G., Kosuth P., Blitzkow D. and Cazenave A. and Kosuth P., Temporal variations of river basin waters from Topex-¨Poseidon satellite altimetry. Application to the Amazon basin, *Comptes Rendus de l'Académie des Sciences*, Serie II, Sciences de la Terre et des planètes, 333, 10, 633-643, https://doi.org/10.1016/S1251-8050(01)01688-3, 2001.
174. *Cabanes C.*, Cazenave A. and Le Provost C., Sea level rise during past 40 years determined from satellite and in situ observations, *Science*, 294, 840-842, https://doi.org/10.1126/science.1063556, 2001.
175. *Bouille F.,* Cazenave A, Lemoine J.M. and Cretaux J.F., Geocenter motion measured from The DORIS space system and laser data to the Lageos satellites, and predicted from climatic data, *Geophys. J. Int*., 143, 71-82, https://doi.org/10.1046/j.1365-246X.2000.00196.x, 2000.
176. Cazenave A., The study of the solid Earth and its fluid envelopes by space geodesy techniques, *Comptes Rendus Acad. Sciences,* Tome 1, Série IV, 1267-1282, 2000.
177. Cazenave A., Remy F., Dominh K. and Douville H., Global ocean mass variation, continental hydrology and the mass balance of the Antarctica ice sheet at the seasonal time scale, *Geophys. Res. Lett*., 27, 3755-3758, https://doi.org/10.1029/2000GL006119, 2000.
178. Raper S., Cazenave A., Dawson A.G., Frezzotti M., Long A.J., Reeh N., Tooley M., de Wolde J. and Woodworth P., Global changes in the volume and mass of the ocean, in Sea level change and coastal processes: Implications for Europe, Edited by. Smith et al., Proceedings of the European Commission, Eur 19337, 2000.

179.Minster J.F., Cazenave A., Serafini Y.V., Mercier F., Gennero M.C. and Rogel P., Annual cycle in mean sea level from Topex-Poseidon and ERS-1: Inferences on the global hydrological cycle, *Global and Planetary Change*, 20, 57-66, https://doi.org/10.1016/S0921-8181(98)00058-7, 1999.
180.*Soudarin L.*, Cretaux J.F. and Cazenave A., Vertical crustal motions from the DORIS space geodesy system, *Geophys. Res. Lett*., 26,1207-1210, https://doi.org/10.1029/1999GL900215, 1999.
181.Cazenave A**.,** Dominh K., *Soudarin L*., Ponchaut F., Cretaux J.F. and Le Provost C., Sea level changes from Topex-Poseidon altimetry and tide gauges, and vertical crustal motions from DORIS, *Geophys. Res. Lett.*, 26, 2077-2080, https://doi.org/10.1029/1999GL900472, 1999.
182.Cazenave A., *Mercier F.*, *Bouille, F.*, and Lemoine J.M., Global-scale interactions between the solid Earth and its fluid envelopes at the seasonal time scale, *Earth Planet Sci. Lett*., 171, 4, 549-559, https://doi.org/10.1016/S0012-821X(99)00172-7, 1999.
183.Cazenave. A., Present-Day Variations of the Mean Sea Level, *Comptes Rendus Acad. Sci*, Earth Planetary Sciences, 329, 457-469, 1999.
184.Ponchaut F. And Cazenave A., Continental lake level variations from Topex/poseidon (1993-1996), *Comptes Rendus Acad. Sciences*, Sciences Terre et Planet. 326, 13-20, 1998.
185.Cretaux J.F., *Soudarin L*., Cazenave A. and *Bouille F.*, Present-day tectonic plate motions and crustal deformations from the DORIS space system*, J. Geophys. Res*., 103, 30167-30181, https://doi.org/10.1029/98JB02239, 1998.
186.Cazenave A., Dominh K., Gennero M.C.and Ferret B., Global mean sea level changes observed by Topex-Poseidon and ERS-1, *Physics and Chem. Earth*, 23, 9-10, 1069-1075, https://doi.org/10.1016/S0079-1946(98)00146-3, 1998.
187.*Lecroart P.*, Cazenave A., *Thoraval C.* and Ricard Y., Along-Axis dynamic topography constrained by major-element chemistry*, Earth Planet. Sci. Lett*, 149, 49-56, https://doi.org/10.1016/S0012-821X(97)00062-9, 1997.
188.*Ramillien G.* and Cazenave A., Global bathymetry from altimetry data of the ERS-1 geodetic mission, *Journal of Geodynamics*, 23, 129-149, https://doi.org/10.1016/S0264-3707(96)00026-9, 1997.
189.Cazenave A., Bonnefond P., Dominh K. And Schaeffer P., Caspian sea level from Topex-Poseidon altimetry: Level now falling, *Geophys. Res.Lett*., 24, 881-884, https://doi.org/10.1029/97GL00809, 1997.
190.*Lecroart P.*, Albarede F. And Cazenave A., Correlations of mid-ocean ridge basalt chemistry with the geoid, *Earth Planet Sci. Lett*., 153, 37-55, https://doi.org/10.1016/s0012-821x(97)00140-4, 1997.
191.Cazenave A, *Gegout P*, Ferhat G. and Biancale R., Temporal Variations of the Earth Gravity Field from Lageos 1 and Lageos 2 Observations, in "Global Gravity Field and its Temporal Variations", Ed. Rapp, Cazenave and Nerem, IAG Symposium n°116, Springer, Berlin, 1996.
192.Cazenave A., P. Schaeffer, M. Berge, Dominh K. and Gennero M.C., A high resolution mean sea surface with the altimeter data of the ERS-1 geodetic mission and Topex-Poseidon, *Geophys. J. Int*., 125, 696-704, https://doi.org/10.1111/j.1365-246X.1996.tb06017.x, 1996.
193.Lefebvre M., Cazenave A., Escudier P., Biancale R., Cretaux J.F., Soudarin L. and Valette J J., DORIS space tracking system improves accuracy of geodetic measurements, *EOS*, 77, 25-29, 1996.
194.Barlier F. Le Traon P.Y. et Cazenave A., Point sur les missions d'altimétrie spatiale: Topex-Poseidon et ERS-1. *Comptes Rendus de l'Académie des Sciences*, t 323, Série IIA, 737-753, 1996.
195.Cazenave A., Geoid, Topography and Distribution of Landforms, in "Global Earth Physics, AGU Handbook of Physical Constants, T. Ahrens Ed., AGU. Reference Shelf 1, 1995.
196.Cazenave A., Parsons B., and *Calcagno P*., Geoid lineations of 1000 km wavelength over the central Pacific, *Geophys.Res.Lett*., 22, 97-100, https://doi.org/10.1029/94GL02858, 1995.
197.*Soudarin L*. and Cazenave A., Large-scale tectonic plate motions measured with the DORIS space geodesy system, *Geophys.Res.Lett*., 22, 469-472, https://doi.org/10.1029/94GL03382, 1995.
198.*Thoraval C.,* Machetel P. and Cazenave A., Locally layered convection inferred from dynamical models of the Earth mantle, *Nature*, 375, 777-780, https://doi.org/10.1038/375777a0, 1995.
199.Cazenave A., Biancale R., Crétaux J.F., Soudarin L., Boucher C., Willis P., Altamini Z., Valette J.J. and Escudier P., Le système spatiale Doris : applications à la géodésie, CNFGG, rapport quadriennal 1991-1994, p. 25-42, 1995.

200.Houry S., Minster J.F., Brossier C., Dominh K., Gennero M.C., Cazenave A. and Vincent P., Radial orbit error reduction and marine geoid computation from the Geosat Altimeter data, *J. Geophys. Res*., 99, 4519-4533, 1994.
201.*Thoraval C.,* Machetel P. and Cazenave A., Influence of mantle compressibility and ocean warping on dynamical models of the geoid, *Geophys. J. Int*., 117, 566-573, https://doi.org/10.1111/J.1365-246X.1994.TB03954.X, 1994.
202.Cazenave A. and *Thoraval C*., Upper mantle dynamics from topography, tomography and geoid ; inference on the origin of the pacific superswell. *Earth Planet. Sci. Lett.,* 122, 207-219, https://doi.org/10.1016/0012-821X(94)90061-2, 1994.
203.Cazenave A., The Geoid and Oceanic Lithosphere, in 'Geoid and its Geophysical Interpretations', P. Vanicêk Ed., CRC Press Inc., 1994.
204.*Calcagno P*. and Cazenave A., Subsidence rate of the seafloor in the Atlantic and Pacific Oceans: Regional and Large-scale variations, *Earth Planet. Sci.Lett*., 126, 473-492, https://doi.org/10.1016/0012-821X(94)90125-2, 1994.
205.*Abarca del Rio R*. and Cazenave A., Interannual variations in the Earth's polar motion for 1963-1991; comparison with atmospheric angular momentum over 1980-1991. *Geophys.Res.Lett*., 21, 2361-2364, https://doi.org/10.1029/94GL02285, 1994.
206.*Calcagno P*. and Cazenave A., Present and Past regional ridge segmentation: Evidence in geoid data, *Geophys. Res. Lett*, 20, 1895-1898, https://doi.org/10.1029/93GL00988, 1993.
207.Cazenave A., *Gegout P., Soudarin L.*, Dominh K., Barlier F., Exertier P. and Boudon Y., Geodetic Results from Lageos 1 and Doris satellite data, In "Contributions of Space Geodesy to Geodynamics: Crustal Dynamics", AGU Monograph; Geodynamics Series, Vol 23, ISBN:9780875900230, https://doi.org/10.1029/GM023, 1993.
208.*Soudarin L*., and Cazenave A., Global Geodesy using DORIS data on SPOT 2, *Geophys. Res. Lett*., 20, 289-292, https://doi.org/10.1029/93GL00127, 1993.
209.*Gegout P*. and Cazenave A., Temporal Variations of the Earth Gravity field for 1985-1989 derived from Lageos, *Geophys. J. Int*., 114, 347-359, https://doi.org/10.1111/j.1365-246X.1993.tb03923.x, 1993.
210.Cazenave A., Houry S., Lago B., and Dominh K., Geosat-derived geoid anomalies at medium wavelength, *J. Geophys. Res*., 97, 7081-7096, https://doi.org/10.1029/91JB03127, 1992.
211.Cazenave A., *Valette J.J.* and Boucher C., Positioning results with Doris on SPOT 2 after first year of mission*, J. Geophys. Res*., 97, 7109-7119, https://doi.org/10.1029/91JB03128, 1992.
212.*Valette J.J*., Cazenave A., Boucher C., and Gavoret M., Absolute and Relative positioning with the DORIS system first result with DORIS on SPOT 2*, Manuscripta Geodetica*, 17, 36-51, 1992.
213.Biancale R., Cazenave A., and Dominh K., Tectonic plate motions derived from LAGEOS, *Earth Planet. Sci. Lett.*, 103, 379-394, https://doi.org/10.1016/0012-821X(91)90174-G, 1991.
214.Cazenave A. and Lago B., Long-wavelength topography, seafloor subsidence and flattening, *Geophys. Res. Lett.*, 18, 1257-1260, https://doi.org/10.1029/91GL01605, 1991.
215.*Gegout P.* and Cazenave A., Geodynamic parameters derived from 7 years of laser data on Lageos, *Geophys. Res. Lett.,* 18, 1739-1742, https://doi.org/10.1029/91GL01801, 1991.
216.Lago B., Cazenave A. and *Marty J.C.*, Regional variations in subsidence rate of lithospheric plates: implications for thermal cooling models, *Phys. Earth and Planet. Int*., 61, 253-259, https://doi.org/10.1016/0031-9201(90)90109-B, 1990.
217.*Monnereau M.* and Cazenave A., Depth and geoid anomalies over oceanic hotspots swells: a global survey, *J. Geophys. Res*., 95, 15429-15438, https://doi.org/10.1029/JB095iB10p15429, 1990.
218.Cazenave A., Souriau A. and Dominh K., Global coupling of Earth surface topography with hotspots, geoid and mantle heterogeneities, *Nature*, 340, 54-57, https://doi.org/10.1038/340054a0, 1989.
219.*Marty J.C.* and Cazenave A., Regional variations in subsidence rate of oceanic plates: a global analysis, *Earth Planet. Sci. Lett*., 94, 301-315, https://doi.org/10.1016/0012-821X(89)90148-9, 1989.
220.Cazenave A., Dominh K., Rabinowicz M. and Ceuleneer G., Geoid and depth anomalies over ocean swells and throughs: Evidence for an increasing trend of the geoid to depth ratio with age of plate, *J. Geophys. Res*., 93, 8064-8077, https://doi.org/10.1029/JB093iB07p08064, 1988.

221. Ceuleneer G., Rabinowicz M., *Monnereau M.*, Cazenave A. and Rosemberg-Borot C., Viscosity and depth extent of the sublithospheric low-viscosity zone: constraints from geoid and depth over oceanic swells, *Earth Planet. Sci. Lett*., 89, 84-102, https://doi.org/10.1016/0012-821X(88)90034-9, 1988.
222. *Marty J.C.,* Cazenave A., and Lago B., Geoid anomalies across Pacific fracture zones, *Geophys. J. Int.,* 93, 1-23, https://doi.org/10.1111/j.1365-246X.1988.tb01385.x, 1988.
223. *Marty J.C*. and Cazenave A., Thermal evolution of the lithosphere beneath fracture zones inferred from geoid anomalies, *Geophys. Res. Lett*., 15, 593-597, https://doi.org/10.1029/GL015i006p00593, 1988.
224. *Monnereau M.* and Cazenave A., Variation of the apparent compensation depth of hotspot swells with age of plate, *Earth Planet. Sci. Lett*., 91, 179-197, https://doi.org/10.1016/0012-821X(88)90160-4, 1988.
225. *Calmant S*. and Cazenave A., Anomalous elastic thickness of the oceanic lithosphere in the south-central Pacific, *Nature*, 328, 236-238, https://doi.org/10.1038/328236a0, 1987.
226. Cazenave A., *Monnereau M.* and Gibert D., Seasat gravity undulations in the central Indian Ocean, *Phys. Earth Planet. Int., 4*8, 130-141, https://doi.org/10.1016/0031-9201(87)90116-6, 1987.
227. Cazenave A. and Dominh K., Global relationship between oceanic geoid and seafloor depth: New results, *Geophys. Res. Lett*., 14, 1-5, https://doi.org/10.1029/GL014i001p00001, 1987.
228. *Gaudon P*. and Cazenave A., Numerical experiments relative to primordial rotations of planets, *Astronomy and Astrophysics*, 173, 183-190, 1987.
229. *Calmant S.* and Cazenave A., The effective elastic lithosphere under the Cook-Austral and Society Islands, *Earth Planet. Sci. Lett.,* 77, 187-202, https://doi.org/10.1016/0012-821X(86)90160-3, 1986.
230. Cazenave A., Rosemberg-Borot C., Rabinowicz M., Geoid lows at deep sea trenches, *J. Geophys. Res*., 91, 1989-2005, 1986.
231. Cazenave A. and Okal E.A., Use of satellite altimetry in studies of the oceanic lithosphere, Space Geod. and Geodyn., Ed. A.J. Anderson and A. Cazenave, Academic Press, London, 1986.
232. Cazenave A., Dominh K., Allegre C., and Marsh J., Global relationship between oceanic geoid and topography, *J. Geophys. Res*., 91, 11439-11450, https://doi.org/10.1029/JB091iB11p11439, 1986.
233. Okal E. and Cazenave A., A model for the plate tectonics evolution of the Eastcentral Pacific based on Seasat investigations, *Earth Planet. Sci. Lett*., 72, 99-117, https://doi.org/10.1016/0012-821X(85)90120-7, 1985.
234. Ruff L. and Cazenave A., Geoid anomalies over the Macquerie Ridge complex indicate an unexpected subducted slab, Physics Earth Planet. Int., 38, 59-69, https://doi.org/10.1016/0031-9201(85)90122-0, 1985.
235. Souriau A. and Cazenave A., Reevaluation of the Chandler wobble seismic excitation from recent data, *Earth Planet. Sci. Lett.*, 75, 410-416, https://doi.org/10.1016/0012-821X(85)90184-0, 1985.
236. Spaute D., Lago B., and Cazenave A., Gaseous drag and planetary formation, Icarus, 64, 139-162, https://doi.org/10.1016/0019-1035(85)90045-4, 1985.
237. Cazenave A., Two distinct trends for cooling of the oceanic lithosphere, *Nature,* 310, 401-403, https://doi.org/10.1038/310401a0, 1984.
238. Cazenave A., Thermal cooling of the oceanic lithosphere: New constraints from geoid height data, *Earth Planet. Sci. Lett.*, 70, 395-407, https://doi.org/10.1016/0012-821X(84)90023-2, 1984.
239. Cazenave A and Dominh K., Geoid heights over the Louisville Ridge (South Pacific), *J. Geophys. Res*. 89, 11171-11179, https://doi.org/10.1029/JB089iB13p11171, 1984.
240. Cazenave A. and Dominh K., Reply to the critique of Reasenberg and Bills on "Elastic Thickness of the Venus lithosphere estimated from topography and gravity", *Geophys. Res. Lett*. 10, 196-198, https://doi.org/10.1029/gl010i003p00196, 1983.
241. Cazenave A. and Dominh K., Anomalies du géoïde au-dessus de la chaîne sous-marine Louisville ridge (Pacifique Sud); conséquences possible sur son origine, *Comptes Rendus de l'Académie des Sciences*, 296, 487-492, 1983.
242. Cazenave A., Lago B. and Dominh K., Thermal parameters of the oceanic lithosphere estimated from geoid height data, *J. Geophys. Res*. 88, 1005-1118, https://doi.org/10.1029/JB088iB02p01105, 1983.
243. Lago B. and Cazenave A., Evolution of cometary perihelion distances in oort cloud: Another statistical approach, *Icarus*, 53, 68-83, https://doi.org/10.1016/0019-1035(83)90021-0, 1983.

244. Cazenave A., Lago B., and Dominh K., Geoid anomalies over the northeast Pacific fracture zones from satellite altimeter data, *Geophys. J. R. Astron. Soc.*, 69, 15-31, https://doi.org/10.1111/j.1365-246X.1982.tb04932.x, 1982.
245. Cazenave A., Lago B., and Dominh K., Numerical experiment applicable to the latest stage of planet growth, *Icarus*, 51, 133-148, https://doi.org/10.1016/0019-1035(82)90033-1, 1982.
246. Cazenave A., Tidal friction parameters from satellite observations, in "Tidal Friction and the Earth Rotation II", Ed. Brosche and Sündermann, Springer-Verlag, 1982.
247. Courtillot V., Le Mouel J.L., Ducruix J., and Cazenave A., Geomagnetic secular variation as a precursor of climatic changes, *Nature*, 297, 386-387, https://doi.org/10.1038/297386a0, 1982.
248. Scholl H., Cazenave A. and Brahic A., the effect of star passages on cometary orbits in Oort cloud, *Astronomy and Astrophysics*, 112, 157-166, 1982.
249. Cazenave A. and Balmino G., Meteorological effects on the seasonal variations of the rotation of Mars, *Geophys. Res. Lett*. 8, 245-248, https://doi.org/10.1029/GL008i003p00245, 1981.
250. Cazenave A. and Daillet S., Lunar tidal acceleration from Earth satellite orbit analyses, *J. Geophys. Res*., 86, 1659-1663, https://doi.org/10.1029/JB086iB03p01659, 1981.
251. Cazenave A. and Dominh K., Elastic thickness of the Venus lithosphere estimated from topography and gravity, *Geophys. Res. Lett*. 8, 1039-1042, https://doi.org/10.1029/GL008i010p01039, 1981.
252. Lago B. and Cazenave A., State of stress of the oceanic lithosphere in response to loading, *Geophys. J.R. Astron. Soc.*, 64, 785-799, https://doi.org/10.1111/j.1365-246X.1981.tb02695.x, 1981.
253. Lago B. and Cazenave A., Réponse de la lithosphère océanique à des charges en surface, *Ann. Geophys*., 1, 37, 119-121, 1981.
254. Cazenave A., Dobrovolskis A., and Lago B., Evolution of the inclination of Phobos, *Nature*, 284, 430-431, https://doi.org/10.1038/284430a0, 1980.
255. Cazenave A., Dobrovolskis A., and Lago B., Orbital history of the Martian satellites with inferences on their origin, *Icarus*, 44, 730-744, https://doi.org/10.1016/0019-1035(80)90140-2, 1980.
256. Cazenave A., Lago B., Dominh K., and Lambeck K., On the response of the ocean lithosphere to seamount loads from Geos 3 satellite radar altimetry, *Geophys. J.R. Astr. Soc*., 63, 233-252, https://doi.org/10.1111/j.1365-246X.1980.tb02618.x, 1980.
257. Balmino G., Brossier C., Cazenave A., Dominh K and Nouel F., Geoid of the Kerguelen Islands area determined from Geos 3 altimeter data, *J. Geophys. Res*., 84, 3827-3831, https://doi.org/10.1029/JB084iB08p03827, 1979.
258. Brahic A., Breton J., Caubel J, Cazenave A. et al., Feasability study of a multiple flyby mission of main belt asteroïds, *Icarus*, 40, 423-433, https://doi.org/10.1016/0019-1035(79)90035-6, 1979.
259. Cazenave A., Lambeck K., and Dominh K., Studies of the Geos 3 geoid undulations over seamounts in the Indian Ocean, AGU Geophysical Monograph Series, Vol. "The Use of Artificial Satellites for Geodesy and Geodynamics", 1979.
260. Lago B. and Cazenave A., Possible dynamical evolution of the rotation of Venus since formation, *The Moon and The Planets,* 21, 127-254, https://doi.org/10.1007/BF00897084, 1979.
261. Cazenave A, *Daillet S.*, Lambeck K., Tidal studies from the perturbations in satellites orbits, *Phil. Trans. R. Soc. Lond. A.,* 284, 595-606, https://doi.org/10.1098/rsta.1977.0036, 1977.
262. Cazenave A., *Daillet S.*, Lambeck K., Effect of Earth, ocean and atmospheric tides on satellite orbits, *Annales de Geophysique*, 33, 1977.
263. Lambeck K., Cazenave A., The Earth variable rate of rotation: a discussion of some meteorological and oceanic causes and consequences, *Phil. Trans. Soc. Lond. A*., 284, 495-506, https://doi.org/10.1098/rsta.1977.0025, 1977.
264. Lambeck K. and Cazenave A., Long term variations in the length of day and climatic changes, *Geophys. J.R. Astr. Soc.* 46, 555-573, https://doi.org/10.1111/j.1365-246X.1976.tb01248.x, 1976.
265. Lambeck K., Cazenave A. and Balmino G., Solid Earth and ocean tides estimated from satellite orbits analysis, *Review of Geophysics and Space Physics*, Vol. 12, 421-433, https://doi.org/10.1029/rg012i003p00421, 1974.

266.Lambeck K. and Cazenave A., The Earth rotation and atmospheric circulation – II. The Continuum, *Geophys. J.R. Astr. Soc*., 38, 1, 49-61, https://doi.org/10.1111/j.1365-246X.1974.tb04108.x, 1974.
267.Lambeck K. and Cazenave A., The Earth rotation and atmospheric circulation – I. Seasonal variations, *Geophys. J.R. Astr. Soc*., 32, 79-93, https://doi.org/10.1111/j.1365-246X.1973.tb06521.x, 1973.
268.Cazenave A., Dargnies O., Balmino G., Lefebvre M., Geometrical adjustment with simultaneaous laser and photographic observations of the European datum; Geophysical Monograph Series, AGU, Vol. 15, "The Use of Artificial Satellites for Geodesy", 1972.
269. Cazenave A., Forestier F., Nouel F., Pieplu J.L., Improvements of zonal harmonics using observations of low inclination satellites, DIAL, SAS and PEOPLE; Geophysical Monograph Series AGU, Vol. 15, "the Use of Artificial Satellites for Geodesy", 1972.

2. Book Editing

1. 'Internal Geophysics and Space', Editeurs A. Cazenave, J.F. Minster and J.C. Husson, Editions Cepadues, Toulouse, 1985.
2. 'Earth Rotation: Solved and Unsolved Problems', A. Cazenave Editor, NATO. ASI Series, D. Reidel Publ. Company, Dordrecht, 1986.
3. Space Geodesy and Geodynamics', A. Cazenave and A.J. Anderson Editors, Academic Press, London, 490 pages, 1986.
4. 'Satellite Altimetry and Earth Sciences. A handbook of Techniques and Applications', Lee-L. Fu and A. Cazenave Editors, Academic Press, International Geophysics Series, 463 pages, Vol. 69, San Diego, USA, 2001.
5. Remote sensing and water resources, Cazenave et al. Editors, 337 pages, Space Science Series of ISSI, vol 55, Springer, ISBN 978-3-319-32448-7, 2016.
6. Integrative study of the mean sea level and its components, 415 p., Cazenave A., Champollion N., Paul F. and Benveniste J. (Edts), 416 pages, Space Science Series of ISSI, vol 58, Springer Int. Pub., ISBN 978-3-319-56490-6., 2017.
7. Satellite altimetry over oceans and land surfaces, D. Stammer and A. Cazenave Editors, 620 pages, CRC Press, Taylor and Francis, ISBN 978-1-4987-4345, 2018.
8. Measurement of Forest Properties for Carbon Cycle Research, K. Scipal, A. Cazenave and T. Lopez (Edts)Space science series of ISSI, Springer, 2019.
9. Coastal Sea Level and open Ocean Processes, R. Ponte, B. Meyssignac, C. Domingues, D. Stammer, A. Cazenave, T. Lopez (Eds.) Space science series of ISSI, Springer, 2020.
10. Satellite studies of geohazards and risks, A. Cazenave, M. Mandea, J. Benveniste, T. Lopez (Eds.), Space science series of ISSI, Springer, 2021.
11. Probing the Earth's deep interior using in synergy observations of the Earth's gravity and magnetic fields, and of the Earth's rotation, Cazenave A., V. Dehant and M. Mandea (Edts), Space science series of ISSI, Springer, 2023.
12. Global change in Africa, A. Cazenave et al. (Eds.), Space science series of ISSI, Springer, 2023.

3. Other publications

1. Cazenave A., Interactions entre les irrégularités de la vitesse de rotation de la Terre et les phénomènes météorologiques et climatiques, Thèse de Doctorat d'Etat, Université de Toulouse, 1975.
2. Cazenave A., and Lambeck K., Rotation de la Terre, Météorologie et Climat, La Recherche, 1977.
3. Cazenave A. and Brahic A., Les Marées dans le Système Solaire, Pour la Science, 1981.
4. Cazenave A. and Lago B., Late stage of planet growth in accretion theory, in "Formation of Planetary Systems", Ed. Brahic, Cepadues, 1982.

5. Cazenave A., Le système solaire : caractéristiques Physiques et Dynamiques ; L'Accrétion des planètes ; les Planètes en Mouvement ; les Marées dans le Système Solaire ; l'Intérieur des Planètes Telluriques ; la Machine Terre ; le système Terre-Lune, Le Grand Atlas de l'Univers, Encyclopedia Universalis, 1984.
6. Cazenave A. and Dominh K., Le Geoïde Marin, Geochronique, n° 14, Mai 1985
7. Cazenave A. and Balmino G., La Gravité de la Terre, La Recherche, n° 176, Avril, 1986.
8. Cazenave A., Le champ de gravité terrestre, Bulletin de la Société Française de Physique, 1989.
9. Cazenave A., Etude de la terre solide depuis l'espace, Document CNES, 1990.
10. Cazenave A., Le manteau terrestre et le champ de gravité, Rapport CNES, Colloque de Prospective Scientifique, 1990.
11. Cazenave A., Le géoïde terrestre, Courrier du CNRS N°76, 1990.
12. Cazenave A., Mesure de déformation du globe par Géodésie Spatiale, Proceedings N°91 Colloque de l'Association Française pour l'Avancement des Sciences sur la Tectonique des plaques et l'expansion de la Terre, 1991.
13. Cazenave A., Applications géodynamiques du système DORIS: expérience pilote à Djibouti, DORIS News Letter N°2, 1991.
14. Soudarin L., Cazenave A., Valette J.J., Positioning Results with DORIS, Proceedings of the 6th International Geodetic Symposium on Satellite Positioning, OSU, Colombus, 1992.
15. Cazenave A., Géodésie spatiale et déformations du globe, Proceedings du 50e anniversaire du BIH, 1992.
16. Cazenave A., Houry S., Dominh K., and Gennero M.C., Preliminary proceedings du 1er symposium on ERS-1, ESA publication - 1992.
17. Cazenave A., Altimétrie spatiale et géophysique, Proceedings du 20e anniversaire du GRGS, 1992.
18. Soudarin L. and Cazenave A., Résultats géodésiques obtenus par analyse de 2 ans de mesures DORIS, proceedings des journées Systèmes de Référence Spatio-temporelles, IERS, Paris, 1993.
19. Cazenave A., "Choisir son orbite", Les conquêtes de l'Espace, Savoirs N°3, Le Monde Diplomatique, 1994.
20. Cazenave A. and K. Feigl, ‘Formes et mouvements de la Terre : satellites et géodésie’, 160 pages, CNRS Editions, Belin, Paris, 1994.
21. Cazenave A., Etude de la Terre solide depuis l'Espace, Proceedings de la journée nationale de l'Association des Professeurs de Biologie et Géologie, 1997.
22. Cazenave A. Gibert D.; Rôle des techniques spatiales en sciences de la Terre solide, Colloque de Prospective de l'INSU, 1996.
23. Cazenave A., Balmino G. et Biancale R.,Geodésie spatiale et Terre solide, Revue des Techniques Avancées, n° 38, Janvier 1997.
24. Cazenave A. and Le Meur H., Les déformations de la Terre, La Recherche, Janvier 1998.
25. Cazenave A. and A. Brahic, Les marées dans le système solaire, Dossier Pour la Science, ‘Les Terres célestes’, avril 1999.
26. Cazenave A., Géodésie Spatiale, Terre Solide et Enveloppes Fluides de surface, Revue du Palais de la Découverte, Paris, avril 2000.
27. Cazenave A., L’exploration des fonds océaniques par altimétrie spatiale, Proceedings du colloque ‘Le 6ème continent’, Institut Catholique, 2001.
28. Cazenave A., Géodésie, Gravimétrie et altimétrie spatiales appliquées aux réserves en eau continentales, Proceedings de la journée nationale ‘Hydrologie Spatiale’, Toulouse, mars 2001.
29. Cazenave A., Les variations actuelles du niveau moyen de la mer, Revue de l’Académie de Marine, 2001.
30. Cabanes A., A. Cazenave and C. Le Provost, La mer monte, CNRS-info, 2001.
31. Cazenave A., Etude de la terre solide et des enveloppes fluides de surface par les techniques spatiales, Livre blanc sur la géodésie, 2002.
32. Cabanes C., A. Cazenave and C. Le Provost, La lettre du Programme International Géosphère Biosphère et du Programme Mondial de Recherche sur le Climat, Changement Global, 2002.
33. Cabanes C., A. Cazenave and F. Remy, La mer monte de 2.5 millimètres par an, La Recherche, 2002.
34. Cazenave A., La Terre observée depuis l’espace, Proceedings de l’Ecole d’été de physique e2phy 2003, Bordeaux, 2003.
35. Cazenave A., Les variations actuelles du niveau de la mer, Revue ‘La Météorologie’, n° 45, mai 2004.

36. Lombard A., C. Cabanes, A. Cazenave, F. Remy., 2,8 millimètres par an, La Recherche, oct. 2004.
37. Menard Y. and A. Cazenave, Le projet Jason-1, Rapport au Cospar, Novembre 2004.
38. Cazenave A. and D. Massonnet, ‘ La Terre vue de l’espace’, 125 pages, Bibliothèque Pour la Science, Belin, Paris, 2004.
39. Cazenave A., Les variations actuelles du niveau de la mer; Observations et causes : Proceedings du colloque ‘L’homme face au climat’, Collège de France, octobre 2004 et Publications Odile Jacob 2005.
40. Delecluse P. and A. Cazenave, L’impact majeur de l’océan sur le climat, CNES MAG, N° 25, mars 2005.
41. Cazenave A., La hausse du niveau des mers, revue ‘Atmosphériques’ Météo-France, 2005.
42. Villain J., F. Rocard, A. Cazenave, F. Alby, De l’Espace pour la Terre, Les Satellites, Revue TDC n° 895. Avril 2005.
43. Cazenave A., ‘La montée du niveau des mers; Rising sea levels’ Lettre PIGB-PMRC, Changement Global, n° 19, mai 2006.
44. Cazenave A., ‘L’océan s’est considérablement réchauffé’, Journal CNES QUI SE PASSE, 2006
45. Cazenave A., ‘L’observation spatiale de la mer’ ouvrage collectif ‘Planète Océane’, Editions Choiseul, 2006.
46. Cazenave A., Quelle élévation du niveau des mers dans le cadre du réchauffement climatique, Les Cahiers de l’Université des lycéens, 2006.
47. Lombard A., C. Cabanes, A. Cazenave et F. Remy., 3 millimètres par an, Editions Tallandier, 2007.
48. Cazenave A., Lombard A., Dominh K., Llovel W., Bouhours S., Ramillien G. and Nerem R.S., Recent advances in measuring and understanding sea level change during the satellite altimetry era, OST publication, 2007.
49. Cazenave A., Present-day sea level rise: do we understand what we measure? Proceedings du workshop “ 15 years of satellite altimetry”, ESA Publication, 2007.
50. Cazenave A., Recent Sea Level Change, Ocean Challenge, vol.15, N° 1, 2007.
51. Cazenave A., ‘L’observation spatiale de la Terre solide et de ses envelopes fluides’, Revue ‘Rayonnement du CNRS’, 2008.
52. Cazenave A., ‘Monitoring sea level change: satellites are essential but not sufficient’, BOSS4GMES journal, 2008.
53. Cazenave A., Monitoring sea level rise using satellites, rapport au COSPAR, 2008.
54. Cazenave A., ‘La hausse actuelle du niveau de la mer’, Revue BIOFUTUR, 2008.
55. Cazenave A., ‘Le cycle de l’eau’, DOCSCIENCES, 2008.
56. Cazenave A., Observing the solid Earth, oceans and land waters from space, The European Physical Journal, ERCA volume 8, 2008.
57. Cazenave A., ‘Surveillance des eaux continentales depuis l’espace’, Revue Géosciences du BRGM, 2008.
58. Cazenave A ., ‘Apport de l’espace à la connaissance de la planète Terre’, Séance solennelle de l’Académie des sciences, 25 novembre 2008.
59. Cazenave A., ‘La hausse actuelle du niveau de la mer’, Questions internationales, La Documentation Française, 2009.
60. Rignot E. and A . Cazenave, ‘Arctic climate, Northern Hemisphere and Global sea level’, WWF report on ‘Arctic Feedbacks’, 2009.
61. Cazenave A., ‘Sea level’, in Encyclopedia for ice and snow, 2009.
62. Cazenave A., Ramillien G. And Biancale R., Temporal gravity change, Encyclopedia of Solid Earth Geophysics, Springer, 2010.
63. Cazenave A. and E. Berthier, ‘La hausse du niveau des océans : jusqu’où ?’, Pour La Science, 2010.
64. Llovel W. and A. Cazenave, ‘Hausse actuelle du niveau de la mer: que savons nous exactement?’, SMF info, 2010.
65. Cazenave A. and E. Berthier, ‘La Terre se réchauffe et la mer monte’, Livre ‘Océan et réchauffement climatique’, Editions Le Pommier et Universcience, 2011.
66. Cazenave A. and M. Ablain, Livre ‘Climat’ CNRS, 2011.
67. Cazenave A., W. Llovel, E. Berthier, G. Krinner, Livre ’Climat’ CNRS, 2011.
68. Cazenave A. Contemporary sea level rise, PAGES, 2012.

69. Cazenave A., Les ressources en eau, Magazine de l'Université Paul Sabatier, Toulouse, 2012.
70. Cazenave A., H.B. Dieng, S. Munier, O. Henry, B. Meyssignac, H. Palanisamy et W. Llovel, Influence d'El Nino et la Nina sur le niveau de la mer, *Journal La Métérologie*, 79, novembre 2012.
71. Cazenave A. and B. Voituriez, L'océan et le climat, Livret de l'environnement, Académie des sciences, 2013.
72. Cazenave A., « La Terre et l'environnement observés depuis l'espace », 79 pages, Leçons inaugurales du Collège de France, Collège de France/Fayard, 2013.
73. Cazenave A., Sea Level, Encyclopedia of Geodesy, 2015.
74. Planton S., G. LeCozannet, A. Cazenave et al., Le climat de la France au XXI[e] siècle ; Changement climatique et niveau de la mer : de la planète aux côtes françaises, Rapport pour le Ministère de l'Ecologie, le Développement Durable et l'Energie, 2015.
75. Cazenave A., E. Berthier, G. Le Cozannet, V. Masson-Delmotte, B. Meyssignac et D. Salas y Melia, Le niveau de la mer : variations passées, présentes et futures, *Journal La Météorologie*, n° 88, février 2015.
76. Cazenave A., Champollion N., Benveniste and Chen J., Foreword: International Space Science Institute Workshop on Remote Sensing and Water Resources, in 'Remote sensing and water resources', space sciences series of ISSI, Springer, 2016.
77. Cazenave A., La hausse du niveau de la mer; observations et projections; livre "Chimie et Changement Climatique", EDP Sciences, 254p, 2016.
78. Cazenave A., Le niveau de la mer, *L'Océan à découvert*, CNRS, 2017.
79. De Marsily G., Abarca del Rio R., Cazenave A., Ribstein P., Allons-nous bientôt manquer d'eau ?, Revue '*La Météorologie'*, 2018.
80. Cazenave A., La mer monte lentement mais surement, Atlas de l'eau et de la mer, Le Monde, 2017.
81. Cazenave A., Contribution to the WMO (World Climate Organization) Statement on the State of the Global Climate 2017, 2018.
82. Cazenave A., L'élévation du niveau de la mer, numéro spécial 'Rivages', Revue Reliefs, 2018.
83. Cazenave A., Satellite Altimetry', Encyclopedia of Ocean Sciences, 2019.
84. Cazenave A., Sea Level Rise, World Scientific Encyclopedia of Climate Change, 2019.
85. Cazenave A., Contribution to the WMO (World Climate Organization) Statement on the State of the Global Climate 2018, 2019.
86. Cazenave A. et al., Temporal variations of the gravity field, Encyclopedia of Solid Earth Geophysics, 2020.
87. Cazenave A., Climate Change and Sea level Rise, Spatium, Association pro ISSI, 2020.
88. Cazenave A., Sea level rise, Global to Local, Editorial, Journal of the Geological Society of India, 2020.
89. Cazenave A., Contribution to the WMO (World Meteorological Organization) report on the state of the global climate: Statement on the State of the Global Climate 2019, WMO-No 1248, 2020.
90. Cazenave A., Contribution to the WMO (World Meteorological Organization) report on African climate: State of the climate in Africa 2019, WMO-No. 1253, 2020.
91. Cazenave A., Contribution to the WMO (World Meteorological Organization) report on the state of the global climate: Statement on the State of the Global Climate 2020, WMO 2021.
92. Cazenave A., Contribution to the WMO (World Meteorological Organization) report on the state of the global climate: Statement on the State of the Global Climate 2021, WMO, 2022.
93. Cazenave A., Contribution to the WMO (World Meteorological Organization) report on the state of the global climate: Statement on the State of the Global Climate 2022, WMO, 2023.
94. Cazenave A., Contribution to the WMO (World Meteorological Organization) report on the state of the global climate: Statement on the State of the Global Climate 2023, WMO, 2024.
95. Cazenave A., La hausse actuelle du niveau de la mer mesurée depuis l'espace, Proceedings 'Futurs de l'océan, des mers et des littoraux' Colloque de Cerisy, 17-23 sept. 2022.
96. Cazenave A., Contribution to the WMO (World Meteorological Organization) report on the state of the global climate: Statement on the State of the Global Climate 2024, WMO, 2025.