



# Colloque: 50 Years of Plate Tectonics: Then, Now, and Beyond

lundi 25 et mardi 26 juin 2018 de 09h00 à 19h00  
amphithéâtre Marguerite de Navarre

Comité scientifique: Eric Calais (ENS, Paris), Anny Cazenave (CNES, Toulouse),  
Claude Jaupart (IPG, Paris), Serge Lallemand (Univ. de Montpellier), Barbara  
Romanowicz (Collège de France)

## Monday June 25

- 9:00 **Welcome**
- 9:15 Xavier Le Pichon (Collège de France), «Afterthoughts of a witness: comparing the Plate Tectonic revolution to the sudden freezing of super-cooled lake Ladoga in «Kaputt» of Curzio Malaparte»
- 10:00 Jason Morgan (Princeton University, USA), «My perspective on the origin of plate tectonics, and how space geodesy is changing it today»
- 10:30 Dan McKenzie (Cambridge University, UK), «The thermal structure of the oceanic lithosphere»
- 11:00 **Coffee break**
- 11:30 Walter Roest (Ifremer, France), «CNEXO and Ifremer: over fifty years of worldwide marine scientific research and exploration of the French EEZ»
- 12:00 Francis Albarede (Ecole Normale Supérieure de Lyon, France), «Where did geochemists hide during the plate tectonics revolution?»
- 12:30 **Lunch break, Students and postdocs event sponsored by Total**
- 14:00 Laurent Jolivet (Université Pierre et Marie Curie, France), «From mantle flow to crustal deformation, a geological perspective»
- 14:30 Richard Gordon (Rice University, USA), «The Plate Tectonic Approximation, Space Geodesy, Cenozoic True Polar Wander, and the Origin of the Hawaiian-Emperor Bend»
- 15:00 **Coffee break**
- 15:30 Roland Bürgmann (University of California Berkeley, USA), «Probing the Rheology of the Asthenosphere»
- 16:00 Peter Molnar (University of Colorado, USA), «Mantle earthquakes: keys to mantle dynamics and the strength of the lithosphere»
- 16:30 Eric Calais (Ecole Normale Supérieure, France), «Large earthquakes in stable plate interiors: a challenge to plate tectonics»
- 17:00 **Poster session**

## Tuesday June 26

- 9:00 Luce Fleitout (CNRS, Ecole Normale Supérieure, France), «Intraplate deformation: short versus long time-scales.»
- 9:30 Cesar Ranero (Barcelona, Spain), «Imaging the subduction»
- 10:00 Jean-Philippe Avouac (California Institute of Technology, USA), «Megathrust earthquakes: How large? How destructive? How often?»
- 10:30 **Coffee break**
- 11:00 Mathilde Cannat (Institut de Physique du Globe, France), «Current understanding of plate divergence processes at mid-oceanic ridges»
- 11:30 Roger Buck (Lamont-Doherty Earth Observatory, USA), «The role of magma in continental breakup and seafloor spreading»
- 12:00 Dietmar Müller (University of Sydney, Australia), «How plate tectonics drives the geological carbon cycle»
- 12:30 **Lunch break**
- 14:00 Gilles Ramstein (CNRS, LSCE, France), «Plate tectonics and climate: what's new since Wegener and Koppen?»
- 14:30 Barbara Romanowicz (Collège de France), «Mantle plumes as presently imaged by global seismic tomography»
- 15:00 **Coffee break**
- 15:30 Anne Davaille (CNRS, Université Paris-Sud, France), «Structure of mantle convection: plumes and plates»
- 16:00 David Bercovici (Yale University, USA), «Generation of plate tectonics from grain to global scale»
- 16:30 Nicolas Coltice (Ecole Normale Supérieure, France), «Will plate tectonics still be our paradigm in 50 years?»
- 17:00 **Panel Discussion**
- 18:00 **Closing cocktail**