



COLLÈGE
DE FRANCE
1530

CHAIRE DE PHYSIQUE DE L'INTÉRIEUR DE LA TERRE

Année académique 2013-2014

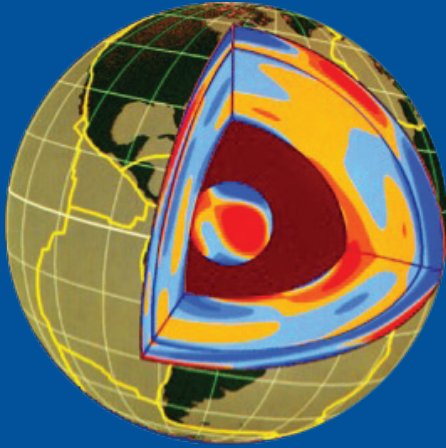
Pr Barbara ROMANOWICZ

Structure and Dynamics of the Lithosphere/Asthenosphere System

Colloque en anglais - Workshop in English

Mardi 19 et mercredi 20 novembre 2013.

Amphithéâtre Maurice Halbwachs.



Tuesday, November 19th, 2013

09h00 Introduction Barbara Romanowicz, *Collège de France*

Session 1: The LAB in Different Oceanic Settings

Chair: Sergei Lebedev, *IAS, Dublin*

09h05 What Does Seismic Anisotropy Tell Us about the LAB?
Jean-Paul Montagner, *IPG, Paris*

09h40 Toward in-situ Characterization of the Lithosphere/Asthenosphere
System of the «Normal Oceanic» Mantle
Hitoshi Kawakatsu, *ERI, Tokyo*

10h15 The Lithosphere/Asthenosphere Boundary Beneath Hotspots
Kate Rychert, *University of Southampton*

10h50 Coffee Break

Session 2: Contrasting Oceanic and Continental Upper Mantle

Chair: Nick Harmon, *University of Southampton*

11h20 Origin and Distribution of Water Content in Continental and Oceanic
Lithospheric Mantle
Anne Peslier, *University of Houston*

11h55 Origin of the Low Velocity Zone Under Oceans and Continents
Lars Stixrude, *UCL, London*

12h30 Lunch

Session 3: Integrative Studies of Continental Lithosphere

Chair: Fabio Cammarano, *University of Copenhagen*

14h00 Integrated Geophysical and Petrological Modelling of the
Uppermost Mantle: Forward and Inversion Approaches
Javier Fullea, *IDEO, Madrid*

14h35 Insights Into the Continental Lithosphere From Electromagnetic
Studies Combined with Other Geoscientific Data: a Plea for
Embracing Holistic Modelling that Satisfies all Available Data
Alan Jones, *IAS, Dublin*

15h10 Deep Thermal and Seismic Structure of the Cratonic Lithosphere
JC Mareschal, *UQAM, McGill University, Montreal*

15h45 Coffee Break

Session 4: Lithospheric Layering

Chair: Hans Thybo, *University of Copenhagen*

16h15 Postcards From the Edge: Seismological Insights Into the
Lithosphere/Asthenosphere System at Subduction Zones
Stephane Rondey, *University of Oslo*

16h50 Cratons vs. Younger Continental Lithosphere: Their Internal and
Lithosphere/Asthenosphere Boundary Structures
Karen Fischer, *Brown University, Providence, RI*

17h25 Poster Session

19h00 Adjourn

Wednesday, November 20th, 2013

Session 5: Continental Stability and Regional Dynamics

Chair: Evgenii Burov, *UPMC, Paris*

09h00 Seismic Evidence for Magma Assisted Continental Rifting
Michael Kendall, *University of Bristol*

09h35 Continental Rifting and Birth of New Steady State Oceanic Spreading
Ridges: Interactions Between Thinning Continents and the
Underlying Asthenosphere
Marta Perez-Gussinye, *University of London*

10h10 Mobile Lower Continental Mantle Lithosphere and the Formation of
Rifted Margins
Ritske Huismans, *Bergen University*

10h45 Coffee Break

Session 6: Global Dynamics, Tectonics and the Lithosphere

Chair: Lapo Boschi, *UPMC, Paris*

11h15 Linking Surface Tectonics With Deep Mantle Evolution
Nicolas Coltice, *University Lyon I*

11h50 Mantle Flow, Lithospheric Structure and Surface Deformation
Carolina Lithgow-Bertelloni, *UCL, London*

12h25 Lunch

Session 7: Fluids in the Lithosphere

Chair: Nick Arndt, *University Joseph-Fourier, Grenoble*

14h00 Coupling Between Partial Melting, Melt Transport, and Deformation at
the Lithosphere/Asthenosphere Boundary: Observations and Models
Andrea Tommasi, *University of Montpellier*

14h35 The Mantle Metasomatism: Diversity and Impact
Michel Grégoire, *Observatoire Midi-Pyrénées, Toulouse*

15h10 Diamonds From the Asthenosphere/Lithosphere Boundary Beneath
Brazil: Tracers of Deep Carbonated Melts
Michael J. Walter, *University of Bristol*

15h45 Coffee Break

Session 8: Regional Dynamics

Chair: Edouard Kaminski, *IPG, Paris*

16h15 Linking the Petrology and Dynamics of the Lithosphere/
Asthenosphere System?
Chip Lesher, *University of California, Davis*

16h50 Mountain Building and Mantle Dynamics
Claudio Faccena, *University Roma Tre*

17h30 Panel Discussion

Alex Schubnel, *ENS, Paris*, Claude Jaupart, *IPG, Paris*, Anne Davaille,
University Paris Sud Orsay, Eric Debayle, *ENS Lyon*, Jean-Louis Bodinier,
University of Montpellier, Barbara Romanowicz, *Collège de France*