

April 3rd 1989

Dear friend,

This is the third and last circular concerning the second workshop on mantle convection. This meeting will be held from June 1st to June 4th 1989 in La Londe les Maures in Southern France (Var).

You will find enclosed a list of participants and a tentative schedule. We may have forgotten some participants or you may like to change the title of your talk. We will make all the corrections that you wish useful (just write to us).

The time allocated for each presentation will be 30 mn including interactive discussion. There will be plenty of space available for posters. Bring all the pictures that you think interesting for the other participants. The video equipment available will be the following: A slide projector, an overhead projector, a "V.H.S." video equipment. (If you need another standard tell us quickly).

If you give a talk or present a poster, we would like to receive your abstracts as long (or short) as you want before the 10th of May. Send them to P. Machellet who will collect and photocopy them for the meeting.

Air Inter (the French domestic airline) provides special fares for groups of at least 5 travellers. We join a form that Luce Fleitout must absolutely receive before May 5th if you want to benefit from this special fare. (Send a fax if you are late).

(Concerning the German participants: We believe more convenient to take a flight Frankfurt-Paris and Paris-Toulon rather than a Frankfurt-Marseilles. The prices are comparable.)

We look forward meeting you soon in La Londe.

Best wishes.

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The fare for one way Paris-Toulon is 492F for a "group" ticket and 827F for an individual ticket. If you are interested by the group ticket, send this form very soon. It must arrive in France before may 5th (Fax is recommended).

From:

Fax number:

Phone number:

I wish to fly from Paris to Toulon may 31st by the flight which leaves Orly at 17 h

YES NO

I wish to fly from Toulon to Paris (indicate your preferred option).

june 3rd at 19 h yes no

june 4th at 14h 15 yes no

If my preferred option for the way back is not available, the other proposed flight suits me.

yes no

THURSDAY 1 ST

PLATE TECTONICS AND GEOID (chairman Uli CHRISTENSEN)

- 8H30 Harro SCHMELING
Mantle convection beneath the continental lithosphere.
- 9H00 Rund WEIJERMANS
Lithosphere subduction : an experimental approach
- 9H30 Bryan TRAVIS
Three-dimensional calculations of convection with depth-dependent viscosity and surface plate.
- 10H00 Philippe CARDIN and Henri-Claude NATAF
Convection with temperature dependent viscosity : the role of the plunging lithosphere.
- 10H30 Coffee break
- 11H00 Helmut HARDER
Plate tectonics and mantle convection.
- 11H30 Michael GURNIS
Dynamic simulations of the coupling between tectonic plates and convection.
- 12H00 Michel RABINOWICZ
Two-dimensional convection in a layered mantle.
- 12H30 Christophe VIGNY and Yannick RICARD
Plate motion and geoid
- 13H00-16H30 Lunch and applied salty fluid dynamics
- RHEOLOGY AND CONVECTION (Chairman Gerald SCHUBERT)
- 16H30 Emilio GIANNANDREA and Uli CHRISTENSEN
Variable viscosity experiment with free boundary.
- 17H00 Anne DAVAILLE
Heat flx in high Ra variable viscosity convection
- 17H30 Andrew FOWLER
Title will be precised later.
- 18H00 Break
- 18H30 Stephen MORRIS
Production of spatial structure by viscosity variations.
- 19H00 Tilman SPOHN
Convection in tidally heated Io.

FRIDAY 2 nd

TIME DEPENDENT CONVECTION (Chairman Gary T. JARVIS)

- 8H30 Manfred KOCH
Transition in time-dependent mantle convection
- 9H00 David GUNKEL
Heat transfert in time dependent convection.
- 9H30 Louise H. KELLOG
Destruction of heterogeneities by mixing in chaotic flows.
- 10H00 Uli CHRISTENSEN
Non diffusing compositional heterogeneity in convecting system.
- 10H30 Coffee break

COMPRESSIBLE CONVECTION (Chairman Tliman SPOHN)

- 11H00 Francesca QUARENI
Convection in an anelastic mantle.
- 11H30 Volker STEINBACH
Influence of depth dependent thermodynamic parameters on compressible convection.
- 12H00 Philippe MACHETEL and David A. YUEN
Penetrative convection induced by internal heating and compressibility.
- 12H30 David BERCOVICI
Three-dimensional spherical models of mantle convection.
- 13H00-16H30 Lunch and low Prandtl number experiments.

NUMERICAL RESULTS AND METHODS (Chairman Michael GURNIS)

- 16H30 Laszlo CSEREPES
3-D convection modelling with different lateral boundary conditions
- 17H00 Gary T. JARVIS
Numerical simulation of mantle convection
- 17H30 Bryan TRAVIS
An interface tracking method for penetrative convection.
- 18H00 Break

MANTLE PLUMES (Chairman Henri-Claude NATAF)

18H30 Uli HANSEN
Thermo-chemical effects on mantle convection.

19H00 Gerald SCHUBERT
Mantle plumes.

SATURSDAY 3 rd

8H30 Bernd WOLTERS
Numerical simulation of plume-lithosphere
interactions.

9H00 Wolf JACOBY
Hot spots, ridges and geoid.

9H30 Harro SCHMELING
Interactions between diapirism and convection.

10H00 Coffee break

10H30 Christophe MORICEAU and Luce FLEITOUT
Hot spots and geoid anomalies : observations and
numerical simulations.

11H00 Anny CAZENAVE
Global coupling between surface topography, hot
spots, geoid and mantle heterogeneities.

11H30 Outcomes of the benchmark study (1987) and open
discussion.