

**MONDAY (22/10/12)** Welcome dinner with all participants at 7:30 pm

**TUESDAY (23/10/12)**

*Chairperson: T. DAUXOIS*

**9:30 am** YVES POMEAU

Deux problèmes avec gravitation: démarrage des supernovae et stabilité des amas globulaires.

*10:30 am Coffee break*

**11:00 am** ANGEL ALASTUEY

Gravitation in the microcanonical ensemble : appropriate scaling leading to thermalization and extensivity.

**12:00 am** JAROSLAW PIASECKI

Mass aggregation in a self-gravitating one-dimensional gas.

*1:00 pm LUNCH*

*Chairperson: R. MACKAY*

**4:00 pm** LAURE SAINT RAYMOND

Sur la limite de Boltzmann-Grad.

*5:00 pm Coffee break*

**5:30 pm** HANS-HENRIK RUGH

On the geometry and dynamics of thermodynamical Ensembles.

**6:30 pm** MICHAEL JOYCE

Dynamics of self-gravitating particles in an expanding universe

*7:30 pm DINNER*

**WEDNESDAY(24/10/12)**

*Chairperson : Y. POMEAU*

**9:30 am** FRANCESCA GULMINELLI

Ensemble inequivalence in supernova matter and neutron stars

*10:30 am Coffee break*

**11:00 am** PIERRE-HENRI CHAVANIS

Statistical mechanics, kinetic theory, and phase transitions in Hamiltonian and Brownian self-gravitating systems

**12:00 pm** CESARE NARDINI

Caloric curve of star clusters

*1:00 pm LUNCH*

4:30 pm *Coffee break*

*Chairperson: A. ALASTUEY*

**5:00 pm**            **YVES ELSKENS**

Comment  $N$  particules dans un même champ stochastique peuvent-elles approcher un ensemble ?

**6:30 pm**            **Table ronde dirigée par T. Dauxois: Statistical Mechanics of self-gravitating systems.**

7:30 pm *DINNER*

**THURSDAY (25/10/12)**

*Chairperson: F. GULMINELLI*

**9:30 am**            **JACQUES LASKAR**

Aspects statistiques pour la dynamique à  $N$  corps en interaction pour  $N$  petit ( $N < 10$ ).

10:30 am *Coffee break*

**11:00 am**          **CLAUDE BAESENS**

Abrupt bifurcation to chaotic scattering: view from the anti-integrable limit.

**12:00 pm**          **JULIEN BARRÉ**

Interactions « pseudo-gravitationnelles » et atomes froids.

1:00 pm *LUNCH*

**FREE AFTERNOON**

7:30 pm *DINNER*

**FRIDAY (26/10/12)**

*Chairperson: C. BAESENS*

**9:30 am**            **STEFANO RUFFO**

Response to external perturbations of systems with long-range interactions.

10:30 am *Coffee break*

**11:00 am**          **FREDDY BOUCHET**

Non equilibrium free energies for interacting particles and turbulent flows.

**12:00 pm**          **PAUL CLAVIN**

Explosions, allumages et transition flamme-détonation. Cas des supernovae ?

1:00 pm *LUNCH*

*Chairperson: S. RUFFO*

**4:00 pm**            **ROBERT MACKAY**

*Dégustation de quatre sujets ?*

5:00 pm *Coffee break*

**5:30 pm**            **Table ronde dirigée par C. Villani: Dynamics of self-gravitating systems.**

7:30 pm *DINNER*

**SATURDAY (Morning)**

**Departure**