

« **N** body gravitational dynamical systems from $N=2$ to infinity... »
 September 9th, 2013 - December 13th, 2013

Workshop

« **Dynamics & Kinetic theory of self-gravitating systems** »

Paris, France November 4th – 8th, 2013
 Amphithéâtre Hermite

ORGANIZERS

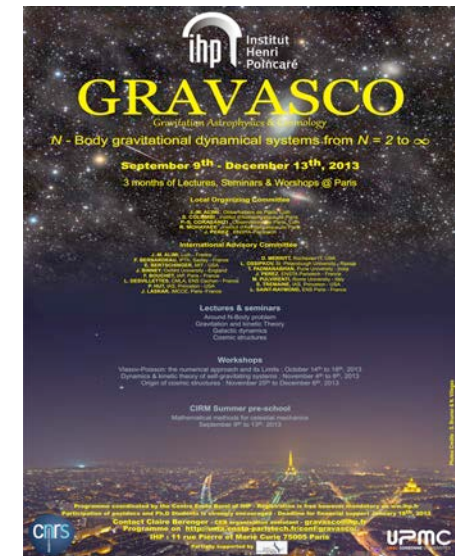
Mohamed Lemou (Rennes 1 University, France)
Jérôme Pérez (ENSTA Paristech, Paris, France)
Florian Mehats (Rennes 1 University, France)

SPEAKERS

Danor Aharon (Haifa Israel Ins. of Tech.)
Angel Alastuey (ENS Lyon, France)
E. Yu. Bannikova (Astron. Kharkov, Ukraine)
Julien Barre (Nice University, France)
Olivier Bienaymé (Strasbourg Univ. France)
James Binney (Oxford University, UK)
Tjarda Boekholt (Leiden Univ., The Netherlands)
Freddy Bouchet (ENS Lyon, France)
Julien Carron (Hawaii University, USA)
Lapo Casetti (Florence University, Italy)
Pierre-Henri Chavanis (Toulouse 3 Univ., France)
Jean Dolbeault (Paris Dauphine University, France)
Michaely Erez (Haifa Israel Ins. of Tech.)
Wahb Ettoumi (Ecole Polytechnique, France)

Farhang Habibi (IRFS Teheran, Iran)
Mahir Hadzic (MIT, USA)
Hosein Hagh (IASBS Teheran, Iran)
Maxime Hauray (Aix-Marseille University, France)
Douglas Heggie (Edinburgh University, Scotland)
Dong-Biao Kang (Xinjiang University, China)
Simon Karl (IoA Cambridge, UK)
José Lages (Franche-Comté University, France)
Gary Mamon (IAP, France)
Alessandra Mastrobuono (Haifa Israel Ins. of Tech.)
David Merritt (Rochester University, USA)
Roya Mohayaee (IAP, France)
Guido Moyano Loyola (Swinburne Univ., Australia)
Leonid Ossipkov (Saint Petersburg State Univ., Russia)

Daniel Pfenninger (Geneva University, Switzerland)
Evgeny Polyachenko (ARAS Ins. of Moscow, Russia)
Gerhard Rein (Bayreuth University, Germany)
Cyril Rigault (Rennes 1 University, France)
Vladimir Salnikov (INSA Rouen, France)
Seshadri Sridhar (RRI of Bangalore, India)
Michel Tagger (Orléans University, France)
Jihad Touma (American Univ. of Beirut, Lebanon)
Audrey Trova (Bordeaux University, France)
Eugene Vasiliev (Lebedev Inst. Moscow, Russia)
Clifford M. Will (University of Florida, USA),
Brunetto Ziosi (University of Padova, Italy)



PROGRAM

Monday November 4th

09.00 am – 09.30 am	Welcome & Registration on Ground floor of IHP	
09.30 am – 10.20 am	Gerhard Rein	Steady states of the Vlasov-Poisson and Einstein-Vlasov systems.
10.20 am – 10.45 am	Cyril Rigault	The Vlasov-Manev system : stability of ground states and self-similar blow-up solutions.
10.45 am – 11.15 am	<i>Coffee break</i>	<i>Ground floor of IHP</i>
11.15 am – 12.05 pm	Maxime Hauray	Mean-field limit and stability for self-gravitating systems with weakly singular interaction.
12.05 pm – 12.30 pm	Vladimir Salnikov	Qualitative analysis of dynamical systems: effective numerical methods.
12.30 pm – 02.30 pm	<i>Lunch time</i>	
02.30 pm – 03.20 pm	Mahir Hadzic	Stability problem for the Einstein-Vlasov system.
03.20 pm – 04.10 pm	Jean Dolbeault	Relative equilibria for Vlasov-Poisson equation.
04.10 pm – 04.40 pm	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.40 pm – 05.30 pm	Poster session	

Tuesday November 5th

09.30 am – 10.20 am	Pierre-Henri Chavanis	Kinetic theory of Hamiltonian and Brownian self-gravitating systems.
10.20 am – 10.45 am	Wahb Ettoumi	Lifetime of quasistationary states in the Hamiltonian Mean Field model.
10.45 am – 11.15 am	<i>Coffee break</i>	<i>Ground floor of IHP</i>
11.15 am – 12.05 pm	Julien Barre	Perturbing a non homogeneous stationary state of the Vlasov equation.
12.05 pm – 12.30 pm	Clifford M. Will	Testing the black-hole no-hair theorem at the galactic center: Perturbing effects of distributions of stars or dark matter.
12.30 pm – 02.30 pm	<i>Lunch time</i>	
02.30 pm – 03.20 pm	Freddy Bouchet	Large deviations and non-equilibrium phase transitions in plasma and gravitating systems.
03.20 pm – 04.10 pm	Angel Alastuey	Gravitation in the Microcanonical Ensemble: Scaling with Fixed Mass Density and the Hydrostatic Approach.
04.10 pm – 04.40 pm	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.40 pm – 05.30 pm	Julien Carron	Statistical ensembles of virialized halo matter density profiles.

Wednesday November 6th

09.30 am – 10.20 am	Jihad Touma	From Onsager to Gauss and Back: The Statistical Mechanics of Gaussian Rings.
10.20 am – 10.45 am	Dong-Biao Kang	Explanations for the surface brightness profile of the stellar disk from statistical mechanics.
10.45 am – 11.15 am	<i>Coffee break</i>	<i>Ground floor of IHP</i>
11.15 am – 12.05 pm	Evgeny Polyachenko	On the radial orbit instability.
12.05 pm – 12.30 pm	Lapo Casetti	Caloric curve of King models with a short-distance cutoff on the interactions.
12.30 – 02.30 pm	<i>Lunch time</i>	
02.30 pm – 03.20 pm	Leonid Ossipkov	Dynamics of star clusters in the galactic field.
03.20 pm – 04.05 pm	Olivier Bienaymé	Aproximate integral of motions.
04.05 pm – 04.10 pm	Michaely Erez	Secular evolution and mass loss in evolved triple systems.
04.10 pm – 04.40 pm	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.40 pm – 05.05 pm	Audrey Trova	The softening length in 3D-fluids.
05.05 pm – 05.30 pm	José Lages	Chaotic dark matter in the Solar system and galaxies.

Thursday November 7th

09.30 am – 10.20 am	Douglas Heggie	Stellar-mass black holes in globular star clusters.
10.20 am – 10.45 pm	Guido Moyano Loyola	Stars on the run: escaping from stellar clusters.
10.45 am – 11.15 am	<i>Coffee break</i>	<i>Ground floor of IHP</i>
11.15 am – 11.50 am	E. Yu. Bannikova	N-body simulation of a self-gravitating torus: application to active galactic nuclei.
11.50 am – 12.05 pm	Alessandra Mastrobuono	Evolution of second generation stars in stellar disks of globular and nuclear clusters: Omega Centauri as a test case.
12.05 pm – 12.30 pm	Hosein Haghi	The remote Galactic globular clusters as a tool to test gravity models and direct N-body simulation.
12.30 pm – 02.30 pm	<i>Lunch time</i>	
02.30 pm – 03.20 pm	James Binney	Diffusion of stars through action space.
03.20 pm – 04.10 pm	Daniel Pfenniger	What has been learned from barred galaxies as gravitating systems mixing order and chaos.
04.10 pm – 04.40 pm	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.40 pm – 05.05 pm	Tjarda Boekholt	Arbitrary-Precision N-body Simulations: Fighting Exponential Divergence.
05.05 pm – 05.30 pm	Michel Tagger	What does amplify the spirals ?
06.30 pm	Cocktail	On Ground floor of IHP

Friday November 8th

09.30 am – 10.20 am	David Merritt	Relativistic Dynamics of Nuclear Star Clusters.
10.20 am – 10.45 pm	Eugene Vasiliev	The role of chaos in secular evolution of galaxies.
10.45 am – 11.15 am	<i>Coffee break</i>	<i>Ground floor of IHP</i>
11.15 am – 11.40 am	Simon Karl	"CHINE" -- a new code for accurate modeling of massive black hole dynamics in numerical simulations of galaxy formation.
11.40 am – 12.05 pm	Brunetto Ziosi	Influence of dynamics and metallicity on the formation and evolution of black-hole binaries in star clusters.
12.05 pm – 12.30 pm	Danor Aharon	The evolution of stellar populations in galactic nuclei.
12.30 pm – 02.30 pm	<i>Lunch time</i>	
02.30 pm – 03.20 pm	Sesh Sridhar	Secular Modes of Keplerian Stellar Systems and their Excitation.
03.20 pm – 03.45 pm	Gary Mamon	The velocity structure of cluster-mass halos without and with gas.
03.45 pm – 04.10 pm	Roya Mohayaee	M3: Giant stream and Warp.
04.10 pm – 04.40 pm	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.45 pm – 05.35 pm	Farhang Habibi	Search for missing baryons by inter-stellar scintillation.