

Second Latin American SCAT Workshop

November 12-16 / 2007

“Mathematical Computation for Development, Resources and Environment”

Inviting institutions:



Instituto de
Investigaciones en
Matemáticas Aplicadas y
en Sistemas (IIMAS)
www.iimas.unam.mx



Instituto de Geofísica
www.igeofcu.unam.mx



Facultad de Estudios
Superiores Cuautitlán
www.cuautitlan.unam.mx

Venue



[www.mexicohoteles.com.mx/
Cozumel/grand_cozumel.php](http://www.mexicohoteles.com.mx/Cozumel/grand_cozumel.php)

Programme of Activities

Monday November 12th

09h00-09h40	Susana Gómez, Dr Lorena Barba, Dr	IIMAS-Mexico U. of Bristol - UK	Welcome and Introduction to the Alfa Programme and SCAT Project
09h40-10h30	Andre Nachbin, Dr	IMPA - Brazil	An optimal Boussinesq model for shallow water wave-microstructure interaction
10h30-11h20	Coffee Break		
11h20-12h10	Andreas Koster, Dr	Cinvestav-Mexico	Static and dynamic cluster properties from density functional theory studies
12h10-13h00	Christophe Josserand, Dr	LMM - France	Modelization of meandering dynamics for laminar flows
13h00-17h00	Lunch		
17h00-17h50	Ismael Herrera, Dr	I. Geofísica – UNAM México	Parallel Computing of Scientific and Engineering Systems: New FETI and Neumann-Neumann algorithms without Lagrange multipliers
17h50-18h40	David Emerson, Dr – X Gu, Dr	Daresbury - UK	Stretched Laminar Flamelet Modelling of Turbulent Combustion
18h40-19h00	Coffee Break		
19h00-19h50	Luis Salinas, Dr	U Sta Maria - Chile	TBD

Tuesday November 13th

09h00- 09h50	Susana Gómez, Dr	IIMAS-UNAM- Mexico	Optimization challenges in Parameter estimation inverse problems
09h50-10h40	Patrice Meunier, Dr	IRPHE -France	A physically based numerical approach for scalar mixing
10h40-11h20	Coffee Break		
11h20-12h10	Pedro González, Dr	DGSCA-UNAM- México	Node Adaptive Domain Decomposition Method by Radial Basis Functions
12h10-13h00	Lydie Staron, Dr	LMM - France	Mobility of long-runout rock flows: a discrete numerical investigation
13h00-17h00	Lunch		
17h00-17h50	Mario Chávez, Dr	I. Ingeniería- UNAM-México	Observations and 3d computing modelling of large subduction earthquakes
17h50-18h10	Aldo Figueroa, Mr	UNAM-Mexico	Oscillating Dipolar Vortex Generated by Electromagnetic Stirring
18h10-18h30	Coffee Break		
18h30-18h50	Daniel Cervantes, Mr	UNAM - Mexico	TBC
18h50-19h10	Alberto Beltrán, Mr	UNAM-Mexico	Generation of local vortical structures in electromagnetically forced flow under a localized time-dependent magnetic field

Wednesday November 14th

09h00- 09h50	Lorena Barba, Dr	U. of Bristol - UK	TBC
09h50-10h40	SCAT Meeting	Topic I	TBC
10h40-11h00	Coffee Break		
11h00-11h50	SCAT Meeting	Topic II	TBC

13h00-18h30 Cultural visit to Tulúm and/or Cuba

19h30-21h30 Dinner in Playa del Carmen

Thursday November 15th

09h00- 09h20	Ernesto Rubio, Mr	UNAM- México	Finite Element Methods with Optimal Functions
09h20-09h40	Iván Contreras, Mr	UNAM- México	TH-Collocation Method
09h40-10h30	Agnès Maurel, Dr	ESPCI - France	Student Round Table
10h30-11h00	Coffee Break		
11h00-11h50	Aron Jazcilevich, Dr	C. Atmósfera- UNAM México	Air quality modelling in the Valley of Mexico: Meteorology, emissions and photochemistry
11h50-12h40	Miguel Robles, Dr	C. Energía-UNAM - México	Interactive simulations for molecular solids and liquids
12h40-17h10	Lunch		
17h10-17h30	William Vásquez, Mr	UNAM- México	High resolution meteorology and air quality modeling in the urban environment of Mexico City
17h30-17h50	Flor Torres, Ms	UNAM México	The Mortar Method
17h50-18h10	Emmanuel Diaz, Mr	UNAM - Mexico	MCCM-WEPS: Coupling of Meteorological, Air Quality and Erosion Models for Mexico City
18h10-18h30	Coffee Break		
18h30-18h50	Cesar Estrada, Mr	UNAM - México	Brownian dynamics of d-dimensional hard hyperspheres
18h50-19h10	José Vidal, Mr	UNAM - Mexico	'Heat transfer analysis on horizontal tube falling film generator of NH ₃ _LiNO ₃ absorption refrigeration system

Friday November 16th

09h00- 09h50	Fernando Brambila, Dr	Fac. Ciencias- UNAM México	Modelling porosity through fractals
09h50- 10h10	Gustavo Ramos, Mr	UNAM México	The adjoint method for the characterization of aquifers porous media
10h10- 10h30	Abraham Ortinez, Mr	UNAM - Mexico	TBC
10h30-11h00	Closure of the Meeting		