

Third Latin American SCAT Workshop

March 24-28 / 2008

“Computational and Mathematical challenges
in Wells, Waves & Weather”



Instituto do Milênio
Avanço Global e Integrado da Matemática Brasileira



Partially sponsored by the Millennium Institute **IM-AGIMB** and by **IMPA**.

Inviting institution: <http://www.impa.br/opencms/pt/index.jsp>

IMPA
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Rio de Janeiro / Brasil 22460-320
Organiser: Andre Nachbin
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Programme of Activities

Monday March 24th

10h00	Pickup at Everest Hotel, Ipanema	→	Return to hotel at the end of every day
10h40-11h10	Dr. Nachbin, Andre.	IMPA, Brazil	Welcome and Introduction to the SCAT Project and IMPA
11h10-11h50	Tour of IMPA		

12h00-14h00 Lunch

14h00-14h40	Dr. Lagrée, Pierre Yves.	IJLRA, Paris, France	Erosion of erodable beds under a water flow: ripples, dunes and alternate bars
14h40-15h20	Dr. Soto, Rodrigo.	U- Chile, Santiago, Chile	Simulating granular media with dense phases

15h20-16h00 Coffee Break

16h00-16h40	Dr. Versieux, Henrique.	IMPA, Brazil	Numerical analysis of a steepest-descent PDE model for surface relaxation below the roughening temperature
16h40-17h20	Dr. Alfaro, Daniel	IMPA, Brazil	Self-averaging of time-reversed acoustic waves in randomly layered media

Tuesday March 25th

10h00	Pickup at Everest Hotel, Ipanema		
10h40-11h20	Dr. Duchemin, Laurent.	IRPHE, Marseille, France	Self-focusing of thin liquid jets
11h20-12h00	Dr. Le Dizes, Stephane.	IRPHE, Marseille, France	Vortex dynamics in stratified fluids

12h00-14h00 Lunch

14h00-14h40	Dr. Kraenkel, Roberto.	IFT, SPaulo, Brazil	Surface Water Waves: exact equations and new asymptotics
14h40-15h20	Dr. Turner, Cristina	Univ. Nac. Cordoba, Argentina	Shear instability for stratified hydrostatic flows

15h20-16h00 Coffee Break

16h00-16h40	Dr. Velho, Luiz	IMPA, Brazil	VISGRAF Lab: Current Research
16h40-17h20	Dr. Silva, Glauber	UFAL, Alagoas & IMPA, Brazil	Is vibro-acoustography based on interaction of sound with sound phenomenon?



Wednesday March 26th

10h00-10h40		SCAT	SCAT's Last year goals and achievements
10h40-11h20		SCAT	Selection of Grantees
11h20-12h00		SCAT	Selection of Grantees

12h00-14h00 Afternoon is free **Conference dinner at night**

Thursday March 27th

10h00	Pickup at Everest Hotel, Ipanema		
10h40-11h20	Dr. Frelat, Joel	IJLRA, Paris, France	Optimization of a part of xylophone using genetics algorithm
11h20-12h00	Dr. Gomez, Susana	UNAM, Mexico City, Mexico	Towards cleaning oil-pollutant spots from the open sea

12h00-14h00 Lunch

14h00-14h40	Dr. Oliveira, Saulo	UFPr, Parana, Brazil	Accuracy of spectral element methods for acoustic wave modeling
14h40-15h20	Dr. Arieta, Juan C.	IMPA, Brazil	Preconditioners for DG discretization of elliptic problems on geometrically non-conforming substructures

15h20-16h00 Coffee Break

16h00-16h40	Dr. Abreu, Eduardo	IMPA, Brazil	Computational Modeling and Numerical Simulation of Three Phase Immiscible Flows in Heterogeneous Porous Media
16h40-17h20	Dr. Boatto, Stefanella	UFRJ, Rio, Brazil	Vortices on closed surfaces

Friday March 28th

10h00	Pickup at Everest Hotel, Ipanema		
10h40-11h20	Dr. Barba, Lorena.	U. of Bristol - UK	Preconditioned global field interpolations
11h20-12h00	Dr. Soria, Manel. Dr. Oliva, Assensi.	UPC, Barcelona, Spain	Parallel CFD at CTTC with structured and unstructured meshes

12h00-14h00 Lunch

Closure of the Meeting

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