

Fourth Latin-American SCAT Workshop
29 September - 03 October 2008

**“Developing a Vision for Advanced Computational
Scientific Research in the Region”**

Host Institution :

Departamento de Física www.dfi.uchile.cl



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Programme of Activities

09h15	Pickup @ Carlton Hotel
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Monday Sept 29th		Topic	SCAT Scientific talks
		Location	Electrotecnología, Auditorio 4th floor - See Map [09]
10h00-10h10	Dr. Soto, Rodrigo	DFI- UChile	Welcome address
10h10-10h20	Dr. Barba, Lorena	U.Bristol-UK	Welcome address
10h20-11h00	Dr. Nunez, Alvaro	DFI- UChile	Numerical Simulation of current driven nanomagnets
11h00-11h40	Coffee Break		
11h40-12h20	Dr. Navarrete, Pablo	DIE- UChile	Extended convergence analysis for linear multi-grid algorithms
12h20-13h00	Visit to Department and Faculty facilities		
13h00-14h30	Lunch		
14h30-15h10	Dr. Rivara, Maria-C.	DCS - UChile	Longest-edge based triangulation algorithms, problems and applications
15h10-15h50	Dr. Cordero, Patricio	DFI- UChile	Brazil nut effect: friction versus topology
15h50-16h30	Dr. Fernandez, Viviana	DII - UChile	Wavelets: a novel mathematical technique to model price transmissions
16h30-17h00	Coffee Break		
17h00-18h00	Dr. Clerc, Jean-Pierre	UMP - France	Phase transition in disordered systems (forest fires, electrical properties, epidemics) – Part I

Tuesday Sept 30th		Topic	SCAT Scientific talks and COURSE I	
		Location	Electrotecnología, Auditorio 4th floor - See Map [09]	
10h00-11h00	Dr. Wiggins, Stephen	U.Bristol-UK	Lagrangian transport in oceanic flows, Theoretical and computational issues -Part I	
11h00-11h20 Coffee Break				
11h20-12h20	Dr. Wiggins, Stephen	U.Bristol-UK	Lagrangian transport in oceanic flows, Theoretical and computational issues -Part II	
12h20-13h00	Dr. Fuentes, Andres	UMP - France	Extinction Simulation of a Diffusion Flame Established in Microgravity	
13h00-14h30 Lunch				
14h30-15h30	Dr. Staron, Lydie	IJLRDA - France	Natural hazards and Numerical simulation: the case of catastrophic flows – Part I	
15h30-16h30	Dr. Clerc, Jean-Pierre	UMP - France	Phase transition in desordered systems (forest fires, electrical properties, epidemics) – Part II	
16h30-17h00 Coffee Break				
17h00-18h00	Dr. Clerc, Jean-Pierre	UMP - France	Phase transition in desordered systems (forest fires, electrical properties, epidemics) – Part III	

Tuesday Sept 30th		Topic	COURSE II	
		Location	Fisica, Galileo Room, 2nd floor - See Map [03]	
10h00-11h00	Dr. Ashworth, Mike	Daresbury Lab. UK	Concepts in Parallel Computing -Part I <i>(Laboratory w/Cluster access)</i>	
11h00-11h20 Coffee Break				
11h20-12h20	Dr. Ashworth, Mike	Daresbury Lab. UK	Concepts in Parallel Computing Part II <i>(Laboratory w/Cluster access)</i>	
12h20-13h00	Dr. Vandenberghe, Nicolas	IJLRDA - France	Impacts on thin elastic sheets	
13h00-14h30 Lunch				
14h30-15h30	Dr. Rossi, Maurice	IJLRDA - France	Generation and Destruction of Vorticity Structures – Part I	
15h30-16h30	Dr. Soria, Manel	UPC - Spain	Introduction to the direct numerical simulation (DNS) of turbulent flows with low cost clusters and supercomputers – Part I	
16h30-17h00 Coffee Break				
17h00-18h00	Dr. Soria, Manel	UPC - Spain	Introduction to the direct numerical simulation (DNS) of turbulent flows with low cost clusters and supercomputers – Part II	

Wednesday October 1st		Topic	SCAT Coordination Meeting	
		Location	Electrotecnología, Auditorio 4th floor - See Map [09]	
10h00-11h00	SCAT community	SCAT	SCAT Extension budget and activities	
11h00-11h20 Coffee Break				
11h20-12h00	HPC Committee	SCAT	SCAT HPC Committee	
12h00-13h00	Scholarship Team	SCAT	SCAT grant holders' selection	
13h00-14h30 Lunch				
Afternoon SCAT activity * * * Visit to the Cousino-Macul Vineyard * * *				

Thursday October 2nd		Topic	SCAT Scientific talks and COURSE I	
		Location	Electrotecnología, Auditorio 4th floor - See Map [09]	
10h00-11h00	Dr. Barba, Lorena	U.Bristol-UK	Meshfree methods and vortex methods - Part I	
11h00-11h20 Coffee Break				
11h20-12h20	Dr. Barba, Lorena	U.Bristol-UK	Meshfree methods and vortex methods - Part II	
12h20-13h00	Dr. Ternat, Fabien	IRPHE - France	On the backward heat equation with Neumann type of boundary conditions	
13h00-14h30 Lunch				
14h30-15h30	Dr. Clerc, Jean-Pierre	UMP - France	Phase transition in disordered systems (forest fires, electrical properties, epidemics) – Part IV	
15h30-16h30	Dr. Clerc, Jean-Pierre	UMP - France	Phase transition in disordered systems (forest fires, electrical properties, epidemics) – Part V	
16h30-17h00 Coffee Break				
17h00-18h30	Dr. Wiggins, Stephen	U.Bristol-UK	Lagrangian transport in oceanic flows, Theoretical and computational issues - Part III	

Thursday October 2nd		Topic	COURSE II	
		Location	Fisica, Galileo Room, 2nd floor - See Map [03]	
10h00-11h00	Dr. Ashworth, Mike	Daresbury Lab. UK	Introduction to MPI Message Passing part I <i>(Laboratory w/Cluster access)</i>	
11h00-11h20 Coffee Break				
11h20-12h20	Dr. Ashworth, Mike	Daresbury Lab. UK	Introduction to MPI Message Passing part II <i>(Laboratory w/Cluster access)</i>	
12h20-13h00	Dr. Roman, Benoit	ESPCI - France	challenges in thin sheet elasticity	
13h00-14h30 Lunch				
14h30-15h30	Dr. Rossi, Maurice	IJLRDA - France	Generation and Destruction of Vorticity Structures – Part II	
15h30-16h30	Dr. Staron, Lydie	IJLRDA - France	Natural hazards and Numerical simulation: the case of catastrophic flows – Part II	
16h30-17h00 Coffee Break				
17h00-18h00	Dr. Gonzalez, Sebastian	DFI- UChile	Parallel multicore programming - part I <i>(Laboratory w/Cluster access)</i>	

Friday October 3rd		Topic	COURSE I	
		Location	Fisica, Galileo Room, 2nd floor - See Map [03]	
10h00-11h00	Dr. Branicki, Michal	U.Bristol-UK	Lagrangian transport in oceanic flows, Examples - Part I	
11h00-11h20 Coffee Break (Fisica - 4th floor)				
11h20-12h20	Dr. Branicki, Michal	U.Bristol-UK	Lagrangian transport in oceanic flows, Examples - Part II	
12h20-13h00	Dr. Ashworth, Mike	Daresbury Lab. UK	The Hartree Centre: a £50 mill. UK project focussed on knowledge exchange and training	

Friday October 3rd

		Topic	
		COURSE II	
		Location	Electrotecnología, Auditorio 4 th floor - See Map [09]
10h00-11h00	Dr. Barba, Lorena	U.Bristol-UK	Meshfree methods and vortex methods - Part III
11h00-11h20 Coffee Break			
11h20-12h20	Dr. Barba, Lorena	U.Bristol-UK	Meshfree methods and vortex methods - Part IV
12h20-13h00	Dr. Gonzalez, Sebastian	DFI-UChile	Parallel multicore programming - part II <i>(Laboratory w/Cluster access)</i>
13h00-13h30	Wrap up session	Group picture	
Closure of meeting			