

First Latin-American SCAT Workshop and Summer School
January 04-12 2007

"Advanced Scientific Computing and Applications"

Host Institution : Universidad Técnica Federico Santa María (USM) www.utfsm.cl
 Dept. of Mathematics www.mat.utfsm.cl
 Dept. of Informatics <http://portal.inf.utfsm.cl/>
 Dept. of Mechanics <http://www.mec.utfsm.cl/es/index.php>

Local contact person and coordination: Raquel Pezoa, +56 32 265 4421

Programme of Activities

Thursday January 04th		Topic	Welcome and informal meeting	
		Location	USM, Salón de Honor	
15h30-16h30	Informal discussion	SCAT	Dissemination	
15h30-16h00	Coffee Break			
16h30-17h30	Joint scientific meetings	SCAT	Scientific collaboration Open discussion	

Friday January 05th		Topic	SCAT Research talks	
		Location	USM, Salón de Honor	
10h00-10h15	Lorena Barba	Bristol, UK	Welcome to all participants	
10h15-10h50	Lorena Barba	Bristol, UK	Vortex multipoles and vortex quasimodes: the parallels and differences between coherent structures of fluids and plasmas	
10h50-11h40	Felipe Barra	DFI - UChile	Non-equilibrium Lorentz gas on a curved space	
11h40-12h10	Coffee Break			
12h10-13h00	Andre Nachbin	IMPA, Brazil	A reduced model for internal waves interacting with topography at intermediate depth	
13h00-14h30	Lunch			
14h30-15h20	Marcus Sarkis	IMPA, Brazil	Stochastic Galerkin Methods for Elliptic PDEs: A White Noise Approach	
15h20-16h10	Marcel Clerc	DFI - UChile	Universal description of stochastic super-critical bifurcation: Theory, Simulations and experiments	
16h10-16h40	Coffee Break			
16h40-17h30	TBD	TBD	TBD	

Saturday January 06th		Topic	SCAT	
		Location	USM, Edificio A, Salón de Honor	
10h00-10h50	Patricio Cordero	DFI Uchile	The mechanism for phase separation in shallow granular systems	
10h50-11h20	Coffee Break			
10h00-10h50	Scholarship Team	SCAT	SCAT grant holders' selection	
11h20-12h10	Scholarship Team	SCAT	SCAT Apple Prize selection	
13h00-14h30	Lunch			
14h30-15h20	Alberto Verga	IRPHE, France	Nonequilibrium phenomena in solids #1	
15h20-16h10	Alberto Verga	IRPHE, France	Nonequilibrium phenomena in solids #2	

Sunday January 07th

Day off.

Monday January 08th		Topic	Courses I	
		Location	USM Departamento de Informática, Auditorio F-106	
10h00-10h50	Alberto Verga	IRPHE, France	Nonequilibrium phenomena in solids #3	
10h50-11h40	-	-	-	
11h40-12h10	Coffee Break			
12h10-13h00	Alberto Verga	IRPHE, France	Nonequilibrium phenomena in solids #4	
13h00-14h30	Lunch			
14h30-15h20				
15h20-16h10	Rodrigo Soto	DFI - UChile	Molecular dynamics simulation of granular fluids #1	
16h20-16h50	Opening speeches & I.R. of USM	USM, Chile	Prensa, Discurso de autoridades, Sponsors, SCAT Group picture	
17h00	Cocktail			
20h30	SCAT Dinner			

Monday January 08th		Topic	Courses II	
		Location	USM Departamento de Informática, LabComp	
10h00-10h50	Markus Sarkis	IMPA, Brazil	Schwarz methods for Partial Differential (practical) #1 <i>MATLAB required</i>	
10h50-11h40	David Emerson	Daresbury Lab. UK	An introduction to parallel computing for CFD #1	
11h40-12h10	Coffee Break			
12h10-13h00	Markus Sarkis	IMPA, Brazil	Schwarz methods for Partial Differential (practical) #2 <i>MATLAB required</i>	
13h00-14h30	Lunch			
14h30-15h20	David Emerson	Daresbury Lab. UK	An introduction to parallel computing for CFD #2	
15h20-16h10	-	-	-	

Tuesday January 09th

		Topic	Talks	
		Location	USM Edificio A, Salon de Honor	
10h00-11h30	Open Doors session			
11h30-12h00	Coffee Break			
12h00-12h30	INTEL	Chile	Sponsor's Talk	
12h30-13h00	MICROSOFT	Chile	Sponsor's Talk	
13h00-13h30	DELL	Chile	Sponsor's Talk	
13h30-14h30	Lunch			

Tuesday January 09th

		Topic	Courses I	
		Location	USM Departamento de Informática, F-106, LabComp ,	
10h00-11h30	-	-	-	
11h30-12h00	-			
12h00-13h30	-	-	-	
13h30-14h30	Lunch			
14h30-15h20	Markus Sarkis	IMPA, Brazil	Schwarz methods for Partial Differential (practical) #3 <i>MATLAB required</i>	
15h20-16h10	Charles Meneveau	J. Hopkins Uni (USA)	The simulation of Fluid Turbulence #1	
16h10-16h40	Coffee Break			
16h40-17h30	Charles Meneveau	J. Hopkins Uni (USA)	The simulation of Fluid Turbulence #2	

Wednesday January 10th

		Topic	Courses I	
		Location	USM Departamento de Informática, LabComp	
10h00-11h40	-	-	-	
11h40-12h10	-			
12h10-13h00	-	-	-	
13h00-14h30	Lunch			
14h30-15h20	-	-	-	
15h20-16h10	Matthew Knepley	Argonne Nat. Lab. -USA	Introduction to PETSc #1 <i>Cluster access</i>	
16h10-16h40	Coffee Break			
16h40-17h30	Matthew Knepley	Argonne Nat. Lab. -USA	Introduction to PETSc #2 <i>Cluster access</i>	

Wednesday January 10th

		Topic	Courses II	
		Location	USM Departamento de Informática, Auditorio F-106	
10h00-10h50	Mike Ashworth	Daresbury Lab. UK	Parallel Scientific Programming (Theory) #1	
10h50-11h40	David Emerson	Daresbury Lab. UK	An introduction to Microfluidics #1	
11h40-12h10	Coffee Break			
12h10-13h00	Mike Ashworth	Daresbury Lab. UK	Parallel Scientific Programming (Theory) #2	
13h00-14h30	Lunch			
14h30-15h20	Manel Soria, Assensi Oliva	UPC, Spain	Dinámica de fluidos computacional con ordenadores paralelos #1	
15h20-16h10	Manel Soria, Assensi Oliva	UPC, Spain	Dinámica de fluidos computacional con ordenadores paralelos #2	
16h10-16h40	Coffee Break			
16h40-17h30	Manel Soria, Assensi Oliva	UPC, Spain	Dinámica de fluidos computacional con ordenadores paralelos #3	

Thursday January 11th

		Topic	Courses I	
		Location	USM Departamento de Informática, LabComp	
10h00-10h50	-	-	-	-
10h50-11h40	Mike Ashworth	Daresbury Lab. UK	Parallel Scientific Programming #3 <i>(Laboratory w/Cluster access)</i>	
11h40-12h10	Coffee Break			
12h10-13h00	Mike Ashworth	Daresbury Lab. UK	Parallel Scientific Programming #4 <i>(Laboratory w/Cluster access)</i>	
13h00-14h30	Lunch			
14h30-15h20	-	-	-	-
15h20-16h10	Matthew Knepley	Argonne Nat. Lab. -USA	Introduction to PETSc #3 <i>Cluster access</i>	
16h10-16h40	Coffee Break			
16h40-17h30	Matthew Knepley	Argonne Nat. Lab. -USA	Introduction to PETSc #4 <i>Cluster access</i>	

Thursday January 11th

		Topic	Courses II	
		Location	USM Departamento de Informática, Auditorio F-106	
10h00-10h50	David Emerson	Daresbury Lab. UK	An introduction to Microfluidics #2	
10h50-11h40	-	-	-	-
11h40-12h10	Coffee Break			
12h10-13h00	-	-	-	-
13h00-14h30	Lunch			
14h30-15h20	Rodrigo Soto	DFI - UChile	Molecular dynamics simulation of granular fluids #2	
15h20-16h10	-	-	-	-
16h10-16h40	Coffee Break			
16h40-17h30	Rodrigo Soto	DFI - UChile	Molecular dynamics simulation of granular fluids #3	

Friday January 12th

		Topic	Course I	
		Location	USM Departamento de Informática, Auditorio F-106	
10h00-10h50	David Emerson	Daresbury Lab. UK	An introduction to Microfluidics #3	
10h50-11h40	Rodrigo Soto	DFI - UChile	Molecular dynamics simulation of granular fluids #4	
11h40-12h10	Coffee Break			
12h10-13h00	Wrap up session	Group picture		
Close of meeting				