

# MATHEMATICAL AND NUMERICAL ASPECTS OF LOW MACH NUMBER FLOWS

## PROGRAM AT A GLANCE

**Sunday, June 20**

**Monday, June 21**

**Tuesday, June 22**

**Wednesday, June 23**

9:00 Welcome-Information and Opening

**Session "Mathematical Theory of Low Mach flows"**

**Session "Acoustics"**

**Session "Mathematical Theory of Low Mach flows"**

9:30 Pr Steve Schochet (Tel Aviv University) <i>"The mathematical theory of Low Mach Number flows"</i>	9:00 Pr D. Bresch (Clermond-Ferrand University) <i>"Acoustic Waves in Bounded domains"</i>	9:00 Pr Emmanuel Grenier (ENS Lyon) <i>"Title to be announced"</i>
10:45 Coffee break	10:15 Coffee break	10:15 Coffee break

**Contributed papers**

**Contributed papers**

**Session "Pressure correction methods"**

11:00 T. Alazard	10:30 S. Roller	10:30 K. Nerinck
11:30 M. Massot	11:00 A. Gordner	11:00 V. Sankaran
12:00 Lunch at IGESA	11:30 R. Sery	11:30 P. Pebay
	12:00 Lunch at IGESA	12:00 O. Mazhorova
		12:30 Lunch at IGESA

**Session "Preconditioning techniques"**

**Session "Modelling of low Mach number flows"**

**Session "Mathematical Theory of Low Mach flows"**

15:30 Pr Eli Turkel (Tel Aviv University) <i>"Dual time-stepping for time-dependent low Mach flows"</i>	16:00 Dr Isabelle Faille (IFP) <i>"Two Models for the simulation of multiphase flows in oil and gas pipeline"</i>	16:00 Raphael Danchin (Paris XII) <i>"Low Mach Number limit for viscous compressible flows"</i>
16:45 Coffee break	17:15 Coffee break	17:15 Coffee break

16h00 Bus shuttle to  
La Tour Fondue

**Contributed papers**

**Contributed papers**

**Numerical Workshop**

17:00 O. Allain	17:30 O. Lafitte	
17:30 P. Birken	18:00 W. Frick	
18:00 T. Kloczko	18:30 S. Dellacherie	
18:30 T. Bui		
19:00 Cocktail		
19:30 Dinner at IGESA	19:30 Dinner at IGESA	19:30 Dinner at IGESA

18h00 Boat shuttle to  
Porquerolles

## Thursday, June 24

### Session "Numerical Methods and asymptotics"

9:00 Pr Rupert Klein (Frei Universitat Berlin)  
*"Using multiple scale asymptotics in the construction of low Mach number numerics"*  
10:15 Coffee break

### Contributed papers

10:30 G. Accary  
11:00 F. Picano  
11:30 C. Dinescu

12:00 Lunch at IGESA

16:00 Pr Pieter Wesseling (TU Delft)  
*"Unified methods for computing compressible and incompressible flows on structured and unstructured staggered grids"*

17:15 Coffee break

### Session "Natural convection"

17:30 V. Heuveline  
18:00 M. Jobelin  
18:30 C. Weisman  
19:00 C. Merkle

20:00 Diner

## Friday, June 25

### Session "Numerical Methods"

9:00 Pr Philip Roe  
*"Elliptic/hyperbolic splitting of 2D and 3D first-order differential systems with numerical applications"*  
10:15 Coffee break

### Contributed papers

10:30 M. Braack  
11:00 A. Cadiou  
11:30 A-C. Lesage

12:30 Lunch at IGESA

15h30 Boat shuttle to La Tour Fondue  
16h00 Bus shuttle to the railway station