



1987-2007: 20th Anniversary of CERFACS

High-Performance Computing Past Success and Future Trends

11-12 October 2007

**Météo-France Conference Center,
42 Avenue G. Coriolis, 31 057 Toulouse cedex 1¹**

CERFACS was created as a "Groupement d'Intérêt Scientifique" on February 13, 1987, further transformed into a "Groupement d'Intérêt Public" in 1988 and finally into a "Société Civile" in 1996. On the occasion of its 20th anniversary CERFACS is organizing a scientific and friendly meeting, to look at past successes and future trends in the field of high-performance computing, and to thank all those who helped it at any time since its creation.

The first day (Oct. 11) includes an afternoon scientific session on "High-performance computing - Past success and future trends", during which renowned scientists will witness on the world wide scientific impact of CERFACS research conducted in this field during the past 20 years. Additionally, several former fellows will present souvenirs of their respective stay at CERFACS and the impact on their future professional career. It ends with a cocktail, followed by a musical concert.

The second day (Oct. 12) is organized around three parallel workshops, each of which illustrating specific aspects of "Parallel Algorithms", "Computational Fluid Dynamics" and "Climate and Global Change".

¹ For access and lodging information please see www.cerfacs.fr/cerfacs/contacts.html

Thursday, October 11, 2007

14h-18h Scientific session

14h00 - 14h15 Opening address: Jean-Claude **André** (Director CERFACS)

14h15 - 14h45 Gene **Golub** (Professor applied mathematics, Stanford Univ.)
14h45 - 14h55 Michael **Rudgyard** (CEO Allinea Software Ltd, Warwick, UK)
14h55 - 15h05 Jean-Pierre **Poyet** (Directeur technique et marketing, GeoService)
15h05 - 15h15 Gilles **Baube** (Entrepreneurs du Monde, ONG)

15h15 - 15h45 Eric **Chaput** (Airbus France)
15h45 - 15h55 Gérard **Meurant** (Directeur de recherche, CEA)
15h55 - 16h05 Lorenzo **Valdettaro** (Associate professor mathematical physics, Politecnico di Milano, *tbc*)

Coffee Break

16h30 - 17h00 Philippe **Courtier** (Directeur, Ecole Nationale Ponts et Chaussées)
17h00 - 17h10 Alan **Edelman** (Professor applied mathematics, MIT)
17h10 - 17h20 Arthur **Rizzi** (Professor, Aeronautics Dept, KTH Stockholm)
17h20 - 17h30 Chantal **Staquet** (Professor, Laboratoire des Ecoulements Géophysiques et Industriels, Grenoble)
17h30 - 17h40 Philippe **Toint** (Director, Dept. Mathematics, Univ. Namur)
17h40 - 17h50 Frédéric **Carbannel** (CGGVeritas, *tbc*)

18h30 Cocktail reception

Tours of CERFACS will be available during the cocktail between 7:15 and 8:00 pm

21h00 Concert:

Beethoven, Schumann, Brahms
by Anne-Lise **Gastaldi**, (piano), David **Gaillard** (viola) and Nadine **Pierre** (cello)

23h00 Return to the hotels in Toulouse city centre by bus (optional ...)

Friday, October 12, 2007

Parallel Workshops

"Sparse Days" (this is part of a workshop starting on Oct. 10²)

- Tim DAVIS: The History of UMFPACK and AMD ... back to CERFACS days.
- Jean-Claude DUNYACH: How to write a successful European proposal using science-fiction techniques
- Alan EDELMAN: Interactive supercomputing with star-p in MATLAB(r) and PYTHON
- Osni MARQUES: Eigensolvers for large electronic structure calculations
- Lars LUNDIN: ASCI Blue Mountain
- Yann Herve De ROECK: Modelling for the coastal environment
- Oleg BURDAKOV: Monotonic data fitting and interpolation
- Jean-Christophe RIOUAL: NEC and the ALGO experience

"Issues in climate change science"

- Laurent TERRAY: Uncertainty in a climate change era: how to communicate about it and how to live with it?
- Short presentations by former members of the Global Change team, *tba*

"High-performance computing in CFD, past success and future trends"

Thierry POINSOT: Introduction to the CFD Group at CERFACS
Christian ANGELBERGER (IFP): LES for piston engines
Frédéric DUCROS (CEA): CFD for nuclear applications
Denis DARRACQ (AIRBUS FRANCE): Aerodynamics research at Airbus
Franck NICOUD (Univ. Montpellier II): Applied Mathematics and CFD
Florent LAPORTE (Airbus France): Wake vortex research
André KAUFMANN (Siemens): CFD at Siemens
Patrick POPP (General Motors, USA): *tba*

² Speakers on Oct. 10 include Didier HENRION (LAAS), Jennifer SCOTT (RAL), Phil KNIGHT (Strathclyde), Alex POTHEN (Old Dominion), Michel DAYDE (ENSEEIH)