Foundations of Computational Mathematics '05

30 June – 9 July 2005, Santander

PLENARY SPEAKERS

- ★ Douglas ARNOLD (Minneapolis)
- ★ James DEMMEL (Berkeley)
- ★ Jan DENEF (Leuven)
- ★ Michael GRIEBEL (Bonn)
- ★ Ernst HAIRER (Genève)
- ★ Adrian LEWIS (Vancouver)
- ★ Stephane MALLAT (Paris)
- ★ Elizabeth MANSFIELD (Canterbury)
- ★ Robert MEYERHOFF (Boston)
- ★ Konstantin MISCHAIKOW (Atlanta)
- ★ Luis Miguel PARDO (Santander)
- ★ Ian SLOAN (Sydney)
- ★ Bernd STURMFELS (Berkeley)
- ★ Endre SÜLI (Oxford)
- ★ Eva TARDOS (Ithaca)
- ★ Vladimir TEMLYAKOV (Columbia)
- ★ Shang-Hua TENG (Boston)
- ★ Enrique ZUAZUA (Madrid)

WORKSHOPS

Nonplenary lectures will be held in 21 workshops, spanning a broad range of mathematical topics:

Foundations of numerical PDEs
Christoph Schwab & Eitan Tadmor

Geometric integration and computational mechanics
Begoña Cano, Debra Lewis & Brynjulf Owren

Information-based complexity
Leszek Plaskota & Ian Sloan

Learning theory
Steve Smale, David McAllester, Tomaso Poggio & Gabor Lugasi

Optimization
Raphael Hauser, Jim Renegar & Philippe Toint

Special functions and orthogonal polynomials
Mourad Ismail, Guillermo Lopez & Ed Saff

Approximation theory
Martin Buhmann & Juan Manuel Peña

Computational algebraic geometry
Teresa Krick & Andrei Gabrielov

Computational number theory
Alan Lauder & Jonathan Pila

Multiresolution and adaptivity in numerical PDEs
Wolfgang Dahmen, Bob Russell & Endre Süli

Numerical linear algebra
Lothar Reichel & Steve Vavasis

Relations to computer science: Algorithmic game theory and metric embeddings
Avrim Blum & Allan Borodin

Real-number complexity
Peter Bürgisser & Gregorio Malajovich

Computational dynamics
Jean-Pierre Ramis, Carles Simo & Warwick Tucker

Geometric modelling and animation
Tom Lyche & Larry Schumaker

Image and signal processing
Albert Cohen & Guillermo Sapiro

Stochastic computation
Brad Baxter & Thomas Müller-Gronbach

Symbolic analysis
Elizabeth Mansfield, Peter Olver & Mike Singer

Computational geometry and topology
Rich Schwartz & Abigail Thompson

Mathematical control theory and applications
Eduardo Casas, Uwe Helmke, Jean-Pierre Raymond & Enrique Zuazua

Random matrices
Ioana Dumitriu, Alan Edelman & Raj Rao

Main local organiser:
Luis Miguel PARDO

FoCM Executive Committee:
Endre SÜLI (Chair)
Raphael HAUSER (Secretary)
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Eitan TADMOR
Mike TODD
Henryk WOŹNIAKOWSKI
Antonella ZANNA

http://www.focm.net/FoCM05/