## MAIA 2016: Programme (09/09/2016)

September 19-23, 2016 CIRM, Luminy, Marseille (France)

The titles are in bold face for "long talks"

The "\*" in front of a title is to say that the talk will be saved as a video (see http://library.cirm-math.fr/Main.htm?context=2&lang=en) More details about the conference at http://scientific-events.weebly.com/1444.html

More details about CIRM at http://www.cirm-math.com/

Everyday

Breafast from 7:00 to 9:00 Lunch at 12:30 Dinner at 19:30

Lounge bar from 21:30 to 23:30

Poster session (Tuesday afternoon)

Mohamed Addam B-spline finite element method for dynamic deflection of beam deformation model Vittoria Bruni Some applications of the wavelet transform with signal-dependent dilation factor

Paul Escande Estimation of linear integral operator from scattered impulse reponses Evelyne Hubert A moment matrix approach to computing symmetric cubatures

Ibrahimoglu On Computing the Derivative of the Lebesgue Function of Barycentric Rational Interpolation Byeongseon Interpolatory and noninterpolatory Hermite subdivision schemes reproducing polynomials Jeong

Peter Massopust B-splines and Clifford algebra

Francesca Pitolli Less is enough: localizing neural sources by the random sampling method

Variational Bézier and B-splines curves Christophe Rabut Valentina Turati Multigrid and Subdivision: grid transfer operators

Irregular Tight Wavelet Frames (Matrix Approach) Alberto Viscardi Anisotropic Diagonal Scaling Matrices and Subdivision Schemes in Dimension d Flena Volontè

Hyoseon Yang Sixth-order Weighted essentially non-oscillatory schemes based on exponential polynomials

**Monday Morning** 

08:50-9:00 Welcome Chairpersons: Carl de Boor/ Albert Cohen 9:00-9:50 Tomas Prony's problem and superresolution in several variables: structure and algorithms

9:50-10:15 Gerlind Plonka Sparse approximation by modified Prony method

10:15-10:45 Coffee break 10:45-11:35 Philpp Grohs Stable Phase Retrieval in Infinite Dimensions

11:35-12:00 Bernard Mourrain Sparse multivariate polynomial-exponential representation and interpolation

12:00-12:25 Mula Dictionary data assimilation for recovery problems Olga

Lunch 12:30

Chairpersons: Tom Lyche/Carla Manni Monday afternoon

> 16:00-17:00 Refreshments 17:00-17:25 Anthony Nouy Adaptive Hierarchical low-rank approximation of multivariate functions using statistical methods

17:25-17:50 Hendrik Speleers Local approximation methods using hierarchical splines

Nora 17:50:18:15 Engleitner Partially Nested Hierarchical B-Splines

18:15-18:35 Short break 18:35-19:00 Adaption of tensor product spline spaces to approximation on domains Nada Sissouno 19:00-19:25 Juan Manuel Recent advances on Accuracy and Stability in Approximation and C.A.G.D. Pena

19:30 Dinner

Chairpersons: Kurt Jetter/ Gerlind Plonka **Tuesday Morning** 

9:00-9:50 \* The unitary extension principle and its generalizations Ole Christensen Brigitte 9:50-10:15 Forster Directional time-frequency analysis via continuous frames 10:15-10:40 Joachim Stoeckler Methods for constructing multivariate tight wavelet frames

10:40-11:10 Coffee break

11.10-11.35 Valérie Perrier Helmholtz-Hodge decomposition, Divergence-free wavelets and applications

11:35-12:00 Nira Dyn Reconstruction of 3D objects from their parallel 1D cross sections by "piecewise linear" interpolation

12:00-12:25 Juettler Low Rank Spline Surfaces Bert 12:30 Lunch

Tuesday afternoon Chairpersons: Tomas Sauer / Jesus Carnicer

16:00-16:45 Refreshments 16:45-17:35 Angela Kunoth \* 25+ Years of Wavelets for PDEs

17:35-18:30 Poster session

18:30-18:55 Holger Wendland Kernel-based Discretisation for Solving Matrix valued PDEs

18:55-19:20 Karlheinz Gröchenig Sampling for solutions of the heat equation

19:30 Dinner

**Tuesday night** 

21:00 -22:30 Meeting on teaching and pedagogy, moderated by Christophe Rabut (room to be defined)

**Wednesday Morning** Chairpersons: Christophe Rabut / Holger Wendland

9:00-9:50 Greg Fasshauer \* Some Recent Insights into Computing with Positive Definite Kernels 9:50-10:15 Gabriele Santin Non-symmetric kernel-based greedy approximation 10:15-10:40 Stefano De Marchi On the rescaled method for RBF approximation

10:40-11:10 Coffee break

11:10-11:35 Milvia Rossini Applications of variably scaled kernels

11:35-12:25 Error bounds for conditionally positive definite kernels without polynomial terms Oleg Davydov

12:30 Lunch

Wednesday afternoon

Co-working, library, walking, sea, cultural activities...

19:30

Thursday Morning		Chairpersons: Nira Dyn / Costanza Conti		
	9:00-9:50	Maria	Charina	* Multigrid and subdivision
	9:50-10:15	Chongyang	Deng	A unified interpolatory subdivision scheme for quadrilateral meshes
	10:15-10:45	Coffee break		
(change made)	10:45-11:10	Lucia	Romani	Convergence of corner cutting algorithms refining points and nets of functions
(change made)	11:10-11:35	Caroline	Moosmueller	Smoothing of vector and Hermite subdivision schemes
(change made)	11:35-12:00	Carla	Manni	Spline spaces over planar T-meshes and Extended complete Tchebycheff space
	12:30	Lunch		
Thursday afternoon		Chairpersons: Abderrahman Bouhamidi / Oleg Davydov		
	16:00-17:00	Refreshments		
	17:00-17:50	Shai	Dekel	Deep learning on Manifolds
	17:50:18:15	Hartmut	Prautzsch	* Spherical Splines
	18:15-18:35	Short break		
	18:35-19:00	Ulrik	Reif	Approximation and Modeling with Ambient B-Splines (on manifolds)
	19:00-19:25	Jeremy	Levesley	Error estimates for multilevel Gaussian quasiinterpolation on the torus
	19:30	Conference dinner ("bouillabaisse")		
Friday Morning (9h-12h30)		Chairperson : Michael Floater / Shai Dekel		
	9:00-9:50	Jungho	Yoon	Univariate Non-linear Approximation Scheme for Piecewise Smooth functions
	9:50-10:15	Tom	Lyche	Simplex spline bases on the Powell-Sabin 12 split
	10:15-10:45	Coffee break		
	10:45-11:10	Carolina	Beccari	Rational Geometric Splines: construction and applications in the representation of smooth surfaces
	11:10-11:35	Mike	Neamtu	Recent Progress on RAGS
	11:35-12:25	Len	Bos	Some Bivariate Generalizations of Berrut's Rational Interpolants
12:30		Lunch and depa	arture	