SMART 2022

SCIENTIFIC PROGRAM

Tuesday, September 20	
14:20–14:40	*Welcome & Opening*
14:40–15:05	Tom Lyche: Simplex spline bases for smooth splines on refined triangulations
15:05–15:30	Jan Grôselj: On constructing non-negative edge basis functions for representation of splines over triangulations
15:30–15:55	Marton Vaitkus: Multi-sided spline interpolation of curve networks
15:55–16:20	Ada Sadl Praprotnik: Exact sphere representations over Platonic solids based on rational multi-sided Bézier patches
16:20–16:50	**Coffee break**
16:50–17:15	Ales Vavpetic: Geometric approximation of the sphere by biquadratic tensor polynomial spline patches
17:15–17:40	Hans-Peter Schröcker: A Linear Algebra Approach to Rational PH Curves
17:40–18:05	Francesc Aràndiga: A Nonlinear B-spline quasi-interpolation method
18:05–18:30	Christophe Rabut: Homogeneity in mathematics: what, why and how

Wednesday, September 21	
09:00–10:00	**Carola-Bibiane Schönlieb: Mathematical imaging: From geometric PDEs and variational modelling to deep learning for images**
10:00–10:25	Simone Cammarasana: Signal despeckling with learned regularisation
10:25–10:50	Rosa Donat: 2D prediction operators based on multiquadric local interpolation with adaptive parameter estimation. Applications to image compression
10:50–11:20	**Coffee break**
11:20–11:45	Giuseppe Recupero: Geometric texture transfer via alternative descriptors
11:45–12:10	Chiara Romanengo: Recognition and fitting of curves and surfaces in 3D digital models via the Hough Transform technique
12:10–12:35	Domenico Vitulano: Source camera identification through noise information
12:35–13:00	Uaday Singh: On rate of convergence of matrix means of corrected Fourier series
13:00–14:30	**Lunch**
14:30–15:30	**Michael Unser: Variational Learning with Simplicial Splines**
15:30–15:55	Sofia Imperatore: On spline weighted least square approximation
15:55–16:20	Rosanna Campagna: An algorithm for non negative P-spline
16:20–16:50	**Coffee break**
16:50–17:15	Emma Perracchione: On kernel-target alignment for data-driven approximation
17:15–17:40	Chiara Sorgentone: Layer potentials near surfaces with spherical topology

Thursday, September 22	
09:00–10:00	**Johannes Wallner: Geometric subdivision and multiresolution**
10:00–10:25	Wael Mattar: Multiscale representations of manifold-valued data via non-interpolating subdivision schemes
10:25–10:50	Alberto Viscardi: Optimized dual interpolating subdivision schemes
10:50–11:20	**Coffee break**
11:20–11:45	Ioannis Ivrissimtzis: Bivariate non-uniform subdivision schemes based on L-systems
11:45–12:10	Alexander Komar: Towards an evolutionary approximation of subdivision control meshes
12:10–12:35	Akhilesh Prasad: Weyl transform associated with linear canonical wavelets
12:35–13:45	**Lunch**
13:45–15:15	**Poster Session** (Eddargani, Kravetc, Lazzaro, Remogna, Romani) + **Fruit and Coffee**
15:30–19:30	*Trip*
19:30–23:00	*Social dinner*

Friday, September 23	
09:00–10:00	**Carla Manni: From spline error estimates to outlier-free isogeometric discretizations**
10:00–10:25	Espen Sande: Best approximations of matrices and differential operators
10:25–10:50	Carlo Garoni: Spectral analysis of matrices from isogeometric immersed methods
10:50–11:20	**Coffee break**
11:20–11:45	Tadej Kanduc: Numerical integration for isogeometric BEM applied to 3D Helmholtz problems on multi-patch domains
11:45–12:10	Giuseppe Alessio D'Inverno: Hierarchical matrices techniques for Helmholtz problem in IgABEM setting
12:10–12:35	Bruno Degli Esposti: 3D IgA-BEM with nonconformal C^0 multipatch spline spaces
12:35–13:00	Felix Scholz: High-order numerical integration for trimmed Isogeometric Analysis
13:00–14:30	**Lunch**
14:30–15:30	**Thomas Takacs: Approximate C^1-smoothness in isogeometric analysis**
15:30–15:55	Deepesh Toshniwal: Almost-C^1 splines
15:55–16:20	Francesco Patrizi: Conforming/Non-Conforming Isogeometric de Rham complex discretization in disk-like domains via polar splines: applications to electromagnetism
16:20–16:50	**Coffee break**
16:50–17:15	Mariarosa Mazza: On the matrices in B-spline collocation/Galerkin methods for a kind of fractional differential equation
17:15–17:40	Cesare Bracco: Discontinuity detection-based meshless numerical method for conservation laws
17:40–18:05	Jiri Kosinka: Quadratures for Gregory Patches

Saturday, September 24	
09:00–10:00	**Hartmut Prautzsch: Rational spline manifolds**
10:00–10:25	Michelangelo Marsala: Point cloud data fitting via G^1 smooth spline basis functions
10:25–10:50	Carolina Beccari: Multi-degree B-splines and their stable evaluation
10:50–11:20	**Coffee break**
11:20–11:45	Marjeta Knez: Construction of spatial Pythagorean-hodograph G^2 Hermite interpolants with prescribed arc lengths
11:45–12:10	Emil Žagar: Interpolation of planar G^1 data by Pythagorean-hodograph cubic biarcs with prescribed arclength
12:10–12:35	Filip Chudy: Accelerating some algorithms for CAGD and dual Bernstein bases
12:35–12:45	*Closing Remarks*