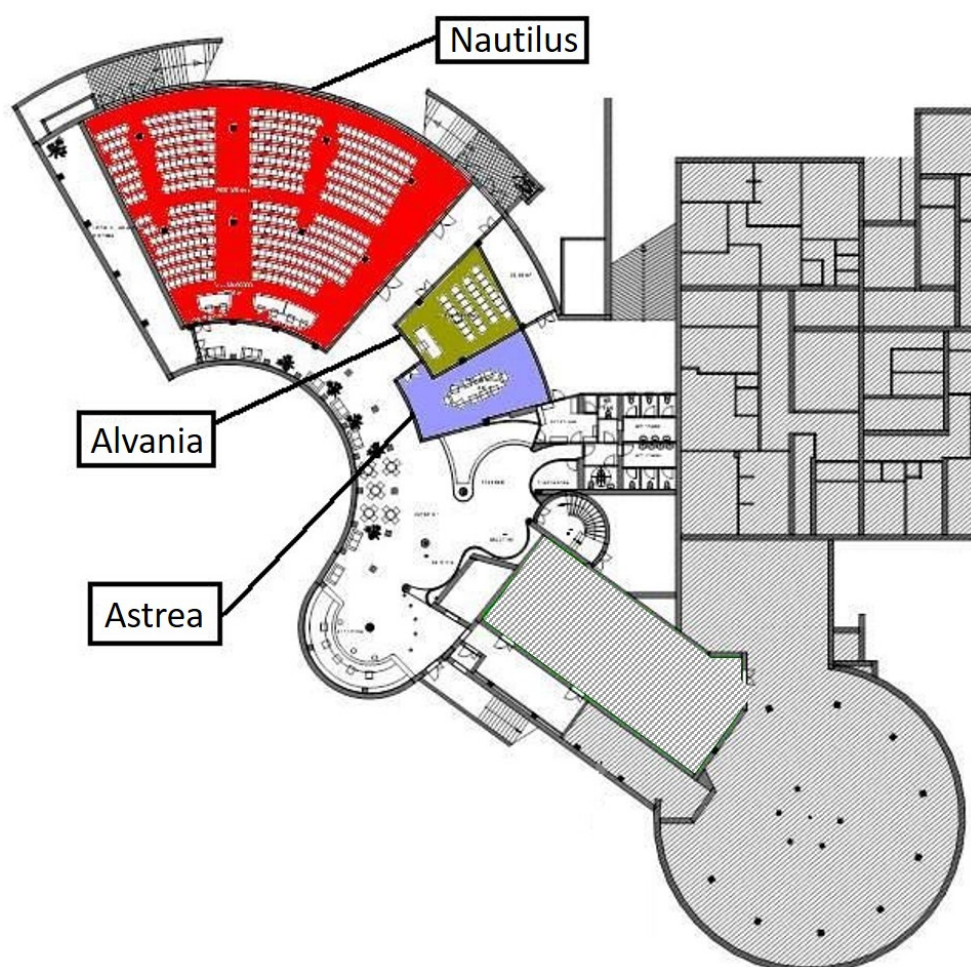


**RECENT ADVANCES IN SCIENTIFIC COMPUTATION (ETNA25)
SANTA MARGHERITA DI PULA, ITALY, MAY 27-29, 2019**

TIMETABLE

- **Plenary speakers**
- **Minisymposia**
 - **MS 1:** Matrix Equations: Analysis and Algorithms
 - **MS 2:** Matrix Functions
 - **MS 3:** Iterative Methods for Well and Ill Posed Problems
 - **MS 4:** Orthogonal Polynomials and Their Applications in Krylov Space Methods, Interpolation, and Quadrature
 - **MS 5:** Modern Regularization of Inverse Problems: Theory and Application
 - **MS 6:** Krylov Subspace Methods and Their Applications
 - **MS 7:** Gauss-type Quadrature Rules: Theory and Applications
 - **MS 8:** New Trends in Applied Mathematics: a Tribute to Sebastiano Seatzu
- **Contributed talks**



ETNA25 TIMETABLE - MONDAY, MAY 27TH

PLENARY SESSION, ROOM NAUTILUS, CHAIR: R. RAMLAU

8:30–9:10	V. MEHRMANN - Numerical analysis of finite element systems modeling elastic stents
9:10–9:50	A. FROMMER - Analysis of block Krylov subspace methods relying on general block inner products
9:50–10:30	D. B. SZYLD - Asynchronous optimized Schwarz methods for the solution of PDEs on bounded domains

10:30–11:00 COFFEE BREAK

PLENARY SESSION, ROOM NAUTILUS, CHAIR: V. MEHRMANN

11:00–11:40	D. A. BINI - On matrix equations associated with random walks in the quarter plane
11:40–12:20	M. BENZI - Iterative solution techniques for the coupled Stokes–Darcy problem
12:20–13:00	M. J. GANDER - Seven things I would have liked to know when starting to work on domain decomposition

13:00–15:30 LUNCH BREAK

	MS 3 (Room Nautilus)	MS 6 (Room Astrea)	MS 8 (Room Alvania)
<i>Chair:</i>	<i>A. Buccini</i>	<i>T. Mach</i>	<i>G. Rodriguez</i>
15:30–16:00	F. Benvenuto - Predictive risk minimization for the expectation maximization algorithm with Poisson data	D. Camps - Approximate inverse-free rational Krylov methods and the link with FOM and GMRES	C. Brezinski - Our work on regularization
16:00–16:30	E. de Sturler - Truncation and recycling for iterative hybrid projection methods	H. Faßbender - On the efficient solution of T -even polynomial eigenvalue problems	C. Estatico - Regularization in Banach spaces for inverse scattering medical imaging
16:30–17:00	B. Morini - Inexact restoration with subsampled trust-region methods for finite-sum minimization	L. Robol - Solving quadratic matrix equations with infinite size coefficients	L. Fermo - Six years of research with Sebastiano
17:00–17:30	COFFEE BREAK		
<i>Chair:</i>	<i>A. Buccini</i>	<i>T. Mach</i>	<i>C. van der Mee</i>
17:30–18:00	R. Ramlau - Efficient minimization of Tikhonov functionals with a sparsity constraint	V. Simoncini - A GMRES convergence analysis for localized invariant subspace ill-conditioning	A. Quarteroni - Numerical models for earthquake ground motion
18:00–18:30	M. Sabaté Landman - Flexible GMRES for total variation regularization	N. Van Buggenhout - Biorthogonal rational Krylov subspace methods	L. Reichel - Anti-Gauss-type quadrature rules
18:30–19:00	S. Serra Capizzano - The GLT class as a generalized Fourier analysis and applications	O. De la Cruz Cabrera (Contributed talk) - Compact manifold regression with Sobolev regularization	C. Seatzu - Partial observation in discrete event systems
20:00	SOCIAL DINNER		

ETNA25 TIMETABLE - TUESDAY, MAY 28TH

“SGALLARI” SESSION, ROOM NAUTILUS, CHAIR: L. REICHEL

8:30–9:10	F. BREZZI - The virtual element methods. An overview		
9:10–9:50	S. MORIGI - Sparsity-inducing non-convex non-separable regularization for convex image processing		
9:50–10:30	F. SGALLARI - Space-variant regularization for image restoration problems		
10:30–11:00	COFFEE BREAK		
	CONTRIBUTED TALKS		
<i>Chair:</i>	<i>G. Toraldo</i> (Room Nautilus)	<i>M. Donatelli</i> (Room Astrea)	<i>M. Redivo-Zaglia</i> (Room Alvania)
11:00–11:30	J. Erhel - Optimization problems in geochemistry	H.B. Bingham - Interpretation of transformed quantities of potential fields: the case of linear/nonlinear inversion	D. Fasino - Ergodicity coefficients for second-order Markov chains
11:30–12:00	D. di Serafino - Subspace accelerated split Bregman methods for constrained fused lasso problems with applications in portfolio optimization	M. Kuiian - Optimally conditioned Vandermonde-like matrices	C. Fenu - On the identification of the regularization parameter in ill-posed problems
12:00–12:30	D. Lera - Solving global optimization problems by Peano space-filling curves	P. Díaz de Alba - A numerical method to solve integral equations by Gauss and anti-Gauss quadrature formulae	M. Popolizio (MS 2) - On the numerical approximation of the matrix Mittag-Leffler function with applications to fractional calculus
12:30–15:30	LUNCH BREAK		
<i>Chair:</i>	MS 1 (Room Nautilus) <i>D.A. Bini</i>	MS 4 (Room Astrea) <i>M.H. Gutknecht</i>	MS 5 (Room Alvania) <i>B. Hofmann</i>
15:30–16:00	P. Benner - On the solution of the nonsymmetric T-Riccati equation	A. Bultheel - Orthogonal polynomials with a skew-Hermitian differentiation matrix	S. Gazzola - Adaptive regularization parameter choice rules for large-scale problems
16:00–16:30	F. De Terán - Uniqueness of solution of generalized Sylvester-like equations with rectangular coefficients	W. Gautschi - Gaussian quadrature rules – made accessible	D. Gerth - First steps towards the numerical quantification of source conditions
16:30–17:00	B. Iannazzo - Schur algorithms for matrix equations	S. Notaris - Anti-Gaussian quadrature formulae based on the zeros of Stieltjes polynomials	T. Mach - Adaptive cross approximation for ill-posed problems
17:00–17:30	COFFEE BREAK		
<i>Chair:</i>	<i>S. Noschese</i>	<i>S. Notaris</i>	<i>S. Kindermann</i>
17:30–18:00	D. Kressner - Low-rank updates and divide-and-conquer methods for matrix equations	C. Glader - Finite Blaschke products in Nevanlinna-Pick interpolation	S. Pereverzyev - Balancing principle in supervised learning for a general regularization scheme
18:00–18:30	M. Mazza - Rank structure based solvers for 2D fractional diffusion equations	W. Van Assche - Simultaneous Gauss quadrature	R. Plato - Periodic autoconvolution: properties and regularization
18:30–19:00	B. Meini - Matrix equations in Markov modulated Brownian motion: theoretical properties and numerical solution	M.H. Gutknecht - The Lanczos algorithms, CG, QD, and a whole circle of ideas	D. Wachsmuth - Tikhonov and Bregman regularization of optimal control problems

ETNA25 TIMETABLE - WEDNESDAY, MAY 29TH

PLENARY SESSION, ROOM NAUTILUS, CHAIR: G. RODRIGUEZ

8:30–9:10	R. VANDEBRIL - QRylov		
9:10–9:50	M. DONATELLI - Multigrid preconditioners for space-fractional diffusion equations		
9:50–10:30	S. KINDERMANN - Heuristic parameter choice rules in inverse problems		
10:30–11:00	COFFEE BREAK		
	CONTRIBUTED TALKS		
	<i>Chair:</i> B. Iannazzo (Room Nautilus)	R. Vandebril (Room Astrea)	F. Sgallari (Room Alvania)
11:00–11:30	N. Mastronardi - The computation of the Jordan structure of totally nonnegative matrices to high relative accuracy	K. Burrage - Generation of representative fibrotic patternings in the atria using Perlin noise	A. Buccini - Parameter selection rules for $\ell^p - \ell^q$ regularization
11:30–12:00	A. Salam - Breakdowns and near breakdowns in symplectic reductions of a matrix to upper J -Hessenberg form	D.S. Watkins - Core-chasing algorithms for the eigenvalue problem	F. Pes - A comparison of regularization methods for solving nonlinear problems
12:00–12:30	R. Jiwari - A numerical algorithm for approximation and analysis of Burgers'-Fisher equation		G. Rodriguez - Photometric stereo under unknown lights position
12:30–15:30	LUNCH BREAK		
	MS 2 (Room Nautilus)	MS 7 (Room Astrea)	Contributed (Room Alvania)
	<i>Chair:</i> C. Brezinski	M. Pranić	S. Morigi
15:30–16:00	B. Beckermann - Low-rank updates of matrix functions	M.C. De Bonis - A quadrature method for Cauchy singular integral equations with additional fixed singularities of Mellin type	M. Mitrouli - On the estimation of the tuning parameter in regularized linear regression models
16:00–16:30	M. Helm - The Fréchet derivative of rational approximations to the matrix exponential and its application on inverse parabolic problems	K. Deckers - Gauss-Kronrod quadrature formulae based on the zeros of Chebyshev orthogonal rational functions	J.R. Winkler - Blind image deconvolution using a non-separable point spread function
16:30–17:00		C. Jagels - Construction of Radau and Lobatto rules from orthogonal Laurent polynomials	
17:00–17:30	COFFEE BREAK		
	<i>Chair:</i> M. Eiermann	M.M. Spalević	B. Meini
17:30–18:00	C. Schimmel - Approximation of the trace of matrix functions based on decay bounds	S. Pozza - Gauss quadrature for linear functionals and Lanczos algorithm	F. Arrigo - Non-backtracking PageRank
18:00–18:30	M. Redivo-Zaglia - Computation of matrix functions by Shanks' transformations	R. Orive - Cubature formulas for Gaussian weights. Old and new	A. Concas - On bipartization of networks