

conference on

# selected topics and perspectives in approximation theory, harmonic analysis, and coorbit theory



in honour of the 60th birthday of  
Prof. Dr. Stephan Dahlke

9 am - 6:30 pm, April 12th, 2019  
Forschungszentrum Deutscher Sprachatlas  
Pilgrimstein 16, 35037 Marburg

## opening

09:00 - 09:30	Peter Maaß	Regularization properties of neural networks for inverse problems
09:30 - 10:00	Hans-Georg Feichtinger	Coorbit theory and decomposition spaces
10:00 - 10:30	Filippo di Mari	Coorbit theory without integrable kernels
10:30 - 11:00	Winfried Sickel	Kondratiev spaces

## tee / coffee

11:30 - 12:00	Rob Stevenson	Stability of Galerkin discretizations of a mixed space-time variational formulation of parabolic evolution equations
12:00 - 12:30	Thorsten Raasch	Besov regularity for elliptic variational inequalities
12:30 - 13:00	Cornelia Schneider	Sobolev and Besov regularity of parabolic PDEs

## lunch

14:00 - 14:30	Massimo Fornasier	A guided tour on sparsity
14:30 - 15:00	Hans-Georg Stark	Nothin' is fixed: On the Metamorphosis of the Uncertainty Principle
15:00 - 15:30	Gerlind Plonka-Hoch	Sparse Encoding Techniques in Phase Retrieval
15:30 - 16:00	Jürgen Prestin	Periodic Shearlets and Singularity Detection
16:00 - 16:30	Daniel Potts	Transformed Rank-1 Lattices for high-dimensional approximation

## tee / coffee

17:00 - 17:30	Klaus Ritter	Random Bits vs. Random Numbers for Numerical Integration
17:30 - 18:00	Martin Ehler	On the spectral decomposition of the Euclidean distance
18:00 - 18:30	Gerd Teschke	Uncertainties, wavelets, sparsity and coorbit theory - a tour on our joint work

## closing remarks / joint dinner

