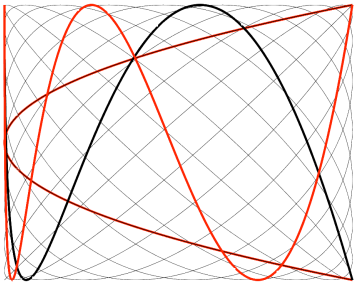
Workshop on

Nonlinear Approximation

University of South Carolina, Columbia, October 25-27, 2019



Organized by the Department of Mathematics & the College of Arts and Sciences

Invited Speakers:

- **Albert Cohen**, Sorbonne Université
- **Ronald DeVore**, Texas A&M University
- **Simon Foucart**, Texas A&M University
- **Kamen Ivanov**, Bulgarian Academy of Sciences
- **George Kyriazis**, University of Cyprus
- **Olga Mula**, Paris Dauphine University
- **Thomas Vogt**, University of South Carolina
- **Gerrit Welper**, University of Central Florida

The lectures will be held in Sumwalt 219 starting at 9:00 am each day. There will be a special event recognizing the contributions of **Wolfgang Dahmen** *and* **Pencho Petrushev** *to the field of Nonlinear Approximation and UofSC.*

Friday, October 25, 2019

8:50 am — Opening Ceremony

9:00 am — *Nonlinear Reduced Models for Manifold Sensing*
Albert Cohen, Sorbonne Université

10:00 am — Coffee Break

10:30 am — *When Can We Say a Computational Algorithm Is Optimal*
Ronald DeVore, Texas A&M University

12:00 noon — Lunch at McCutchen

2:00 pm — *Solving the Neutron Transport Equation with Certified Error Control*
Olga Mula, Paris Dauphine University

3:00 pm — Coffee Break

3:30 pm — *Nonlinear n-Term Approximation in $\mathcal{H}^p$, $0 < p < \infty$, and in* BMO *on the Sphere from Shifts of the Newtonian Kernel*
Kamen Ivanov, Bulgarian Academy of Sciences

5:00 pm — Discussion

7:30 pm — Dinner at Saluda's

Saturday, October 26, 2019

9:00 am — *Imaging Using Electrons*
Thomas Vogt, University of South Carolina

10:00 am — Coffee Break

10:30 am — *Sparse Recovery Techniques in Metagenomics*
Simon Foucart, Texas A&M University

12:00 noon — Box Lunch

2:00 pm — *Reduced Order Modelling for Hyperbolic PDE with Shock Collisions*
Gerrit Welper, University of Central Florida

3:00 pm — Coffee Break

3:30 pm — *Product Besov and Triebel-Lizorkin Spaces with Application to Nonlinear Approximation*
George Kyriazis, University of Cyprus

5:00 pm — Discussion

6:15 pm — Dinner at Terra

Sunday, October 27, 2019

10:00 am — Discussion and Brunch