

Workshop on  
“Analysis and Geometry in Several Complex Variables”

November 20 - 24, 2023

organized by

Peter Ebenfelt (UC San Diego), Purvi Gupta (IIS Bangalore), Bernhard Lamel (U of Vienna),  
Nordine Mir (Texas A&M U at Qatar)

• **Monday, November 20th, 2023**

09:00 – 09:30 **Registration & Welcome**

09:30 – 10:20 **Emil Straube (TAMU, College Station)**

*DF-index and a sufficient condition for global regularity in the  $\bar{\partial}$ -Neumann problem revisited (again)*

10:20 – 11:00 **Coffee Break**

11:00 – 11:50 **Severine Biard (U Polytechnique, Haute-de-France)**

*A Residue formula and applications to stable sets of foliations*

11:50 – 14:00 **Lunch Break**

14:00 – 14:50 **Anne-Katrin Gallagher (GTI, Redmond)**

*On the Poincare inequality on open sets in  $R^n$*

15:00 – 15:50 **Andrew Raich (U of Arkansas, Fayetteville)**

*The  $d$ -bar problem on  $Z(q)$  domains*

16:00 – 16:50 **Rasul Shafikov (U of Western Ontario)**

*Rational convexity on Stein and projective manifolds*

16:50 – 18:30 **Wine & Cheese**

• **Tuesday, November 21st, 2023**

09:30 – 10:20 **Shiferaw Berhanu (U of Maryland)**

*The Rado property for CR functions.*

10:20 – 11:00 **Coffee Break**

11:00 – 11:50 **Ilya Kossovskiy (Masaryk U, Brno)**

*Sphericity and analyticity of a strictly pseudoconvex hypersurface in low regularity*

11:50 – 14:00 **Lunch Break**

14:00 – 14:50 **Ming Xiao (UC, San Diego)**

*Kähler-Einstein Bergman metrics on pseudoconvex domains*

15:00 – 15:50 **Jean Ruppenthal (Bergische U Wuppertal)**

*The  $L_2$ -Stokes Theorem on Complex Varieties and Dolbeault Cohomology*

- **Wednesday, November 22nd, 2023**

09:00 – 09:50 **Takeo Ohsawa (Nagoya U)**

*Weighted Bergman spaces on locally pseudoconvex domains*

10:00 – 10:50 **John (Nick) Treuer (UC, San Diego)**

*Modifications of the Levi core*

11:00 – 11:30 **Coffee Break**

11:30 – 12:30 **Dmitri Zaitsev (Trinity College, Dublin)**

*Catlin's global regularity - a new proof and generalizations.*

17:00 – 21:00 **Social Dinner**

*Additional information and registration will be made available. Location: <https://weingutkerbl.at/kerbl-am-weinberg/>, transportation will be arranged.*

- **Thursday, November 23rd, 2023**

09:30 – 10:20 **John P. D'Angelo (U Illinois)**

*Rational sphere maps: symmetries, gaps, and optimization.*

10:20 – 11:00 **Coffee Break**

11:00 – 11:50 **Loredana Lanzani (U of Bologna)**

*TBA*

11:50 – 14:00 **Lunch Break**

14:00 – 14:50 **Sean Curry (Oklahoma State U, Stillwater)**

*The local CR embedding problem*

15:00 – 15:50 **Howard Jacobowitz (Rutgers U)**

*CR Geometry and Analysis*

- **Friday, November 24th, 2023**

09:30 – 10:20 **Nikolay Shcherbina (Bergische U Wuppertal)**

*TBA*

10:20 – 11:00 **Coffee Break**

11:00 – 11:50 **Laurent Stolovitch (U Côte d'Azur, Nice)**

*On neighborhoods of embedded complex tori*

11:50 – 14:00 **Lunch Break**

14:00 – 14:50 **Gian Maria Dall'Ara (INDAM and SNS, Pisa)**

*Spectral gap estimates for  $\bar{\partial}$ -Laplacians and subellipticity in the  $\bar{\partial}$ -Neumann problem*

15:00 – 15:50 **Franz Forstneric (U Ljubljana)**

*Oka tubes in holomorphic line bundles*

**All talks take place at ESI Boltzmann Lecture Hall!**