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Raum: G.15.19

Im Rahmen der

## AG Komplexe Analysis

laden wir zu folgender Vortragsreihe ein:

### PSH Singularities

(Prof. Alexander Rashkovskii, University of Stavanger, Norway)

Die Vorträge finden statt in der Zeit **20.05.2019 bis 28.05.2019** im Raum G.15.25.

#### Lecture 1.1 & 1.2 (Monday, 20.05., 16:00-18:00)

*Lecture 1.1: Lelong numbers of psh functions.* (a) def, elementary properties (b) LN of slices and pull-backs/forwards (c) directional LN due to Kiselman (KLN) (d) local indicators

*Lecture 1.2: LN of positive closed currents.* (a) MA currents (b) def of LN of currents (c) generalized LN due to Demailly (DLN)

#### Lecture 2.1 & 2.2 (Tuesday, 21.05., 16:00-18:00)

*Lecture 2.1: Properties of DLN.* (a) Lelong-Jensen formula (b) semicontinuity (c) comparison theorems (d) applications to LN

*Lecture 2.2: Relative type (rt) and log canonical threshold (lct).* (a) rt: definition, properties, representation thm (b) integrability index and lct: def, elementary properties, comparison

#### Lectures 3.1 & 3.2 (Monday, 27.05., 16:00-18:00)

*Lecture 3.1: Analyticity thms I.* (a)  $L^2$  extension thms (b) Application to lct: restriction formula, Openness Conjecture

*Lecture 3.2: Analyticity thms II.* (a) analyticity (of upper-level sets) for lct (b) Demailly's approximation thm (c) analyticity for LN (Siu's thm) (d) analyticity for DLN (e) analyticity for rt

**Lectures 4.1 & 4.2 (Tuesday, 28.05., 16:00-18:00)**

*Lecture 4.1: Structure formulas.* (a) Siu's decomposition formula (b) King formula (c) LN and multiplicities

*Lecture 4.2: Evaluation of residual MA masses.* (a) Reduction to indicators (b) MA masses as (co)volumes (c) Newton polyhedral (d) Open problems

Alle Interessenten sind herzlich eingeladen!

gez. Prof. N. Shcherbina