

Finite Energy Classes on Compact Kähler Manifolds

Abstract

In this talk we will consider two different classes of quasi-plurisubharmonic functions on compact Kähler manifolds, namely classical finite energy classes and the Choquet-Monge-Ampère classes. These classes play an important role in the analysis of the Complex Monge-Ampère operator on compact Kähler manifolds. We will first characterize these classes through their energy levels and then we will compare them. We will see that over different singularity types, the comparison between these classes yields totally different characteristics. This is joint work with Vincent Guedj (IMT) and Ahmed Zeriahi (IMT).

References

- [GSZ 17] V. Guedj, S. Sahin, A. Zeriahi: Choquet-Monge-Ampère Classes. *Potential Anal.* **46** (2017), no. 1, 149-165.
- [GZ05] V. Guedj, A. Zeriahi: Intrinsic capacities on compact Kähler manifolds. *J. Geom. Anal.* **15** (2005), no. 4, 607-639.
- [GZ07] V. Guedj, A. Zeriahi: The weighted Monge-Ampère energy of quasi-plurisubharmonic functions. *J. Funct. An.* **250** (2007), 442-482.