## The complex Monge-Ampère equation on compact Hermitian manifolds

## Sławomir Kołodziej

Jagiellonian University, Poland Slawomir.Kolodziej@im.uj.edu.pl

Session: 11. Geometric Analysis and Related Topics

(Joint works with S. Dinew and Nguyen Ngoc Cuong.)

Let  $(X, \omega)$  be a compact Hermitian manifold of complex dimension n. We study the weak solutions to the complex Monge-Ampère equation

$$(\omega + dd^c \varphi)^n = f\omega^n, \quad \omega + dd^c \varphi \ge 0,$$

where  $0 \leq f \in L^p(X, \omega^n)$ , p > 1, and  $dd^c = \frac{i}{\pi} \partial \overline{\partial}$ , with the inequality understood in the sense of currents. The main results include a priori estimates and the existence of continuous solutions of the complex Monge-Ampère equation with the right hand side in  $L^p, p > 1$ .