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Duong H Phong* (phong@math.columbia.edu), Department of Mathematics, Columbia University, New York, NY 10027. *Multiplier ideal sheaves and canonical metrics.*

The obstructions to the existence of canonical metrics in Kähler geometry are global, and expected to be encoded in destabilizing sheaves. A natural approach is to construct such sheaves as multiplier ideal sheaves, following ideas of Kohn, Siu, and Nadel. We describe recent work in this direction, in the context of Hermitian-Einstein metrics and of the Kähler-Ricci flow. (Received August 05, 2007)