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Tommaso de Fernex* (defernex@math.utah.edu) and **Roi Docampo**. *Jacobian discrepancies and rational singularities*.

Singularities in the minimal model program have an asymptotic nature built in. In this paper, we propose a non-asymptotic approach to singularities of arbitrary varieties from the point of view of Jacobian ideals and Nash blow-ups. The main contribution is a theorem establishing the connection between the discrepancies introduced in this context and the notions of rational and Du Bois singularities. (Received December 12, 2011)