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Alix Deruelle, Ronan Conlon and Song Sun* (sosun@berkeley.edu). Classification results for expanding and shrinking gradient Kahler-Ricci solitons.

We discuss some results towards understanding the complex geometry of complete expanding and shrinking Kahler-Ricci solitons. In particular, we prove a folklore conjecture on the classification of 4 dimensional asymptotically conical shrinking Kahler-Ricci solitons, and discuss some future directions. (Received March 02, 2021)