In this talk I shall describe a new necessary and sufficient condition on the existence of Kähler-Einstein (KE) metrics on small deformations of a Fano KE manifold with nontrivial automorphism group. I will also describe a canonical extension of pluri-anticanonical forms from a Fano KE manifold to its small deformations which leads to a simultaneous embedding of a family of Fano manifolds into projective spaces with effective control. This is a joint work with X. Sun, S.-T. Yau and Y. Zhang. (Received July 24, 2017)