Gabor Szekelyhidi:Â The equivariant Yau-Tian-Donaldson conjecture

I will discuss an equivariant version of the Yau-Tian-Donaldson conjecture on the existence of Kahler-Einstein metrics, strengthening the result of Chen-Donaldson-Sun. This gives new examples of Kahler-Einstein manifolds, and it can also be applied to the existence problem for Kahler-Ricci solitons. It is joint work with Ved Datar.