1147-53-117   **Sun-Yung Alice Chang*** (`chang@math.princeton.edu`), Department of Mathematics, Princeton University, Princeton, NJ 08544, and **Yuxin Ge** and **Jie Qing**. *Compactness of conformally compact Einstein manifolds on dimension 4.*

Given a class of conformally compact Einstein manifolds with boundary, we are interested to study the compactness of the class under some local and non-local boundary constraints. I will report some joint work with Yuxin Ge and Jie Qing including compactness results which are improvements of the earlier conditions obtained by Chang-Ge and compactness results under perturbation conditions when the L^2 norm of the Weyl curvature is small. As a by product, we will derive the global uniqueness of conformally compact Einstein metrics on the 4-Ball constructed in the earlier work of Graham-Lee. (Received December 24, 2018)