

# Conformally compact Einstein manifolds in dimension 4

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## Abstract

We show some compactness result of 4-dimensional conformally compact Einstein manifolds under the suitable assumptions on the topology of the manifolds, on the compactness of their conformal infinity and on some suitable conformal invariants. We discuss also the existence and uniqueness of such manifolds when the conformal infinity is close to the standard 3-sphere. These are joint works with Alice Chang and with Alice Chang and Jie Qing.