

A variational analysis of the spinorial Yamabe equation on product manifolds

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Abstract. This work is devoted to the analysis of the spinorial Yamabe problem on Spin manifolds and some applications to CMC immersions. Despite the efforts of many authors, very little is known on the existence of spinorial Yamabe metrics on general Spin manifolds. Motivated by bubbling phenomena for the Riemannian problem and recent multiplicity results in this setting, we investigate special spinorial Yamabe metrics on product manifolds developing a bubbling analysis which has independent interest in the present setting.

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