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Blowing-up solutions to low-dimensional scalar curvature-type equations

In this talk, we will consider the question of existence of positive blowing-up solutions to a class of scalar curvature-type equations on a closed Riemannian manifold. A result of Olivier Druet provides necessary conditions for the existence of blowing-up solutions whose energy is a priori bounded. We will present new results showing the optimality of Druet's conditions. We will discuss in particular the low-dimensional case, where the mass of the manifold plays a major role. This is a joint work with Frédéric Robert (Université de Lorraine).