

1134-35-260

Jerome Vetois* (jerome.vetois@mcgill.ca). *Blowing-up solutions for critical elliptic equations on a closed manifold.*

In this talk, we will look at the question of existence of blowing-up solutions for smooth perturbations of positive scalar curvature-type equations on a closed manifold. From a result of Druet, we know that in dimensions different from 3 and 6, a necessary condition for the existence of blowing-up solutions is that the limit equation agrees with the Yamabe equation at least at one blow-up point. I will present new existence results in situations where the limit equation is different from the Yamabe equation away from the blow-up point. I will also discuss the special role played by the dimension 6. This is a joint work with Frederic Robert. (Received September 08, 2017)