Critical point theory at infinity: an abstract approach and an application

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In this talk we present an abstract framework that allows to apply Morse theoretical methods to variational problems not satisfying the Palais-Smale condition. As an application we consider the Nirenberg problem of prescribing the scalar curvature on spheres, recovering and refining a result by Bahri-Coron, for instance.

The talk is based on joint work with Mohameden Ahmedou (Giessen).