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Bruno Premoselli* (bruno.premoselli@ulb.ac.be). *Instability of focusing initial data sets in high dimensions.*

In this talk we will investigate blow-up properties for a class of initial data sets for the Einstein equations obtained from the conformal method in a scalar-field theory. In dimensions larger than 6, and when some stability conditions on the physics data are not satisfied, we will show that the conformal method produces blowing-up families of initial data sets. The proof of this result combines constructive variational methods with a priori asymptotic analysis blow-up techniques. (Received September 20, 2017)