Stability of the Milne model with matter

David Fajman[1,*]

[1]*University of Vienna, Vienna, Austria*
*Email: David.Fajman@univie.ac.at

The celebrated future stability of the Milne model under the vacuum Einstein flow by Andersson and Moncrief has been generalised in recent years to different Einstein-matter systems in 3+1-dimensions. The problem has been considered for the Einstein-Vlasov system by Anderson-F., for the Einstein-Klein-Gordon system by F.-Wyatt and for the Einstein-Maxwell system as part of a more general class of systems, arising from higher-dimensional spacetimes with symmetries by a Kaluza-Klein reduction, by Branding-F.-Kröncke. Each result requires individual technical ideas to control the respective matter model in the perturbed Milne geometry. We will give an overview on the main mechanism of stability of the Milne geometry for these Einstein-matter systems.