

CMM PDE Seminar

Speaker: Hamed Barzegar (University of Vienna, Austria)

Title: Bianchi cosmologies with massless Vlasov matter.

Abstract: In this talk, I will give a short introduction to "mathematical cosmology" with a focus on the application of the kinetic theory in cosmology. As such, I will talk about Bianchi cosmologies, i.e., spatially homogeneous spacetimes that are governed by the Einstein equations which are coupled to massless collisionless (Vlasov) matter. Then, I will discuss their future attractors and show future stability of such models within Bianchi types I, II, and V symmetry class. The proof turns out to be more challenging compared to the corresponding massive case where the cosmological constant is absent, since the massless particles indicate less decay rates in the course of the expansion of the universe. The proof is based on an energy method for small initial data.

Modalidad: presencial en la sala de seminarios del DIM piso 5 o bien online vía zoom:
<https://uchile.zoom.us/j/81800846925?pwd=T0krYUE0YkhNbnFNP2prUGNpUU9kZz09>

June 14, 2022 at 12 Santiago time

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página <https://eventos.cmm.uchile.cl/pdeseminar/>

