Workshop on Astro-particles and Gravity



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The Bianchi-V spacetime with viscous matter and evolving gravitational and cosmological 'constants'

Tuesday 20 September 2022 14:30 (30 minutes)

In this presentation, we discuss the cosmological solutions of the Bianchi type–V spacetime filled with bulk viscous fluid and evolving cosmological Λ and Newtonian G parameters. We show that the model describes a universe that starts off with a negative cosmological term, dominated by non-relativistic matter and decelerated, that eventually becomes dark energy- dominated and hence expanding with acceleration, in concordance with current observations. Ongoing work in this direction will also be briefly discussed.

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