Copernicus Webinar and Colloquium Series



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Cosmology via holography

Tuesday 21 March 2023 16:30 (1h 30m)

We describe how the standard tools of holography might be used to define microscopic models of big-bang cosmology. We consider models where a bubble of the cosmological spacetime is embedded in an asymptotically AdS spacetime, and models where an asymptotically AdS Euclidean spacetime obtained by analytically continuing the cosmological spacetime is described via a Euclidean CFT construction. While the effective field theories we consider have negative cosmological constant, they can describe realistic accelerating cosmologies via the positive potential energy of time-dependent scalar fields.

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