



Contribution ID: 169

Type: 5 minutes talk

## An Introduction to Causal Set Theory

*Thursday, 16 December 2021 15:04 (7 minutes)*

Causal Set Theory (CST) is an approach to quantum gravity which asserts that spacetime is fundamentally a locally finite partially ordered set that encodes a causal ordering between elements. In this theory, the continuous manifold is simply an emergent phenomenon, with the discreteness of spacetime becoming significant at the Planck scale. In this talk I will review the causal sets programme, discuss the motivation for a discrete spacetime, and go through key developments such as potential mechanisms for causal set growth as well as the Benincasa-Dowker-Glaser action for causal sets.

**Could you please give the most relevant category for your talk?**

Gravity

**Will you be pre-recording your talk?**

No

**Are you happy for your talk to be recorded?**

Yes

**Would you be interested in receiving feedback on your presentation?**

Yes

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**Session Classification:** Gong show talks