



Contribution ID: 139

Type: 20 minutes talk

## Type II Calabi-Yau compactifications in general spacetime signature

*Friday, 17 December 2021 15:45 (30 minutes)*

String Theory is a web of perturbatively defined 10 dimensional theories related to each other by various dualities such as “T-duality”. When considering a “timelike” T-duality we uncover theories that realize all spacetime signatures.

In this talk, I will motivate the study of dynamic spacetime signature in a quantum gravity context and present the theories obtained in 4 dimensions when compactifying these exotic theories on a Calabi-Yau manifold, as well as the web of dualities relating them.

I will also give an introduction to the “Special geometry” of the scalar sector and, if time permits, I will describe how this formalism allows one to relate certain black hole solutions to cosmological ones.

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

Strings

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

No

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

Yes

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

Yes

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**Session Classification:** Full-length talks