Institut Henri Poincaré

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String Theory in Greater Paris

Rencontres Théoriciennes

“Supergravité, théorie des cordes et théorie M”

Jeudi 24 Septembre 2020, 15:00

Juan Maldacena

IAS

Humanly traversable wormholes

We will review the construction of traversable wormhole solutions in four dimensions. The simplest construction involves magnetic fields and charged massless fermions. These are ingredients found in the Standard Model at very short distances, giving us possible microscopic wormholes. One can have larger wormholes, such as the ones that would allow a person to travel, by adding an extra "dark sector" with suitable massless matter. One particular example involves the Randal Sundrum II model.

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