

Lundi 14 mai 11h00

CEA-Saclay Bat 141, salle André Berthelot

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# Lorentz Violation, gravity, dissipation and holography

ELIAS KIRITSIS

APC/CNRS

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Lorentz non-invariance in quantum field theory is reconsidered as well as its interplay with gravity, diffeomorphism invariance and changing reference frames. We clarify these issues, and argue that Lorentz violation is always an environmental effect. We provide a holographic view of the breaking, and its connection to Horava-Lifshitz type of gravitational theories. We also argue that dissipation is always a signal of Lorentz violation. We provide calculations of dissipation at strong coupling.

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Le café sera servi 10 minutes avant.

NB : La présentation d'une pièce d'identité est exigée à l'entrée du centre. Tous les auditeurs extérieurs sont priés de prévenir à l'avance Emilie Chancrin, tél. 01 69 08 23 50, e-mail : [emilie.chancrin@cea.fr](mailto:emilie.chancrin@cea.fr). (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).