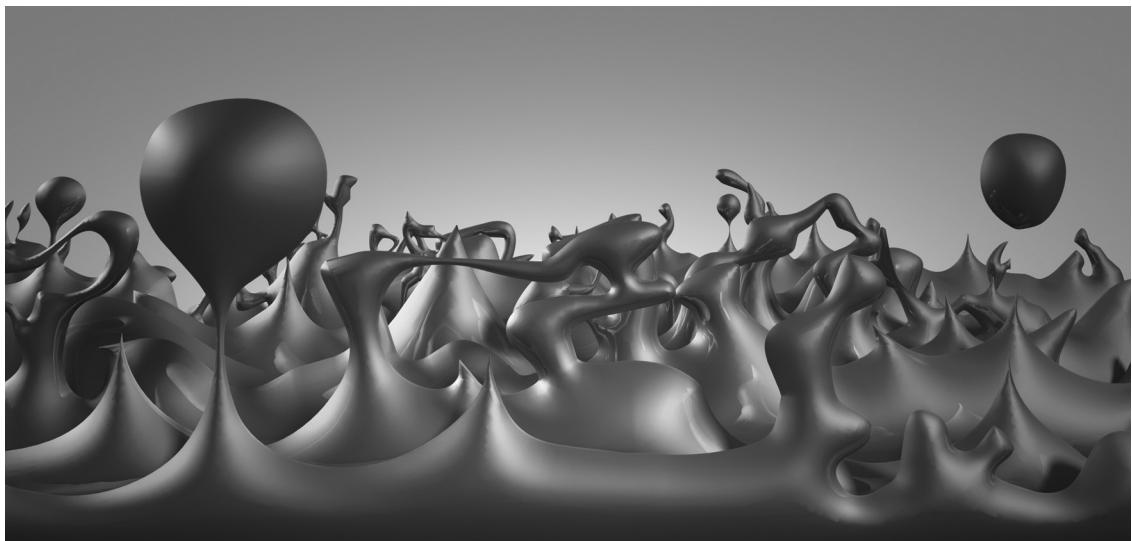


COMPTES RENDUS PHYSIQUE

Tome 18 (2017) – N° 3–4 – mars–avril



This artist's illustration depicts how the foamy structure of space-time may appear, showing tiny bubbles quadrillions of times smaller than the nucleus of an atom, which are constantly fluctuating and last for only infinitesimal fractions of a second. NASA/CXC/M. Weiss. Public domain.

Cette vue d'artiste représente comment la structure en mousse de l'espace-temps peut se manifester. Elle montre des bulles minuscules, des quadrillons de fois plus petites que le noyau d'un atome, qui fluctuent en permanence et ont une durée de vie de l'ordre de fractions infinitésimales de seconde. NASA/CXC/M. Weiss. Domaine public.

DOSSIER

Testing different approaches to quantum gravity with cosmology / Tester les théories de la gravitation quantique à l'aide de la cosmologie

Coordinator / Coordinateur : Aurélien Barrau

• Testing different approaches to quantum gravity with cosmology: An overview Aurélien Barrau	189
• String cosmology and the landscape Iosif Bena, Mariana Graña	200
• Testing loop quantum cosmology Edward Wilson-Ewing	207
• Spectral action gravity and cosmological models Matilde Marcolli	226
• The universe as a quantum gravity condensate Daniele Oriti	235
• Evolution of universes in causal set cosmology Fay Dowker, Stav Zalel	246
• Asymptotically safe cosmology – A status report Alfio Bonanno, Frank Saueressig	254

Continued on the next page

Contents (continued)

- CDT and cosmology
Lisa Glaser, Renate Loll 265
- Do we *really* understand the cosmos?
Thanu Padmanabhan 275