Jorma Louko (University of Nottingham, UK): *Unruh-De Witt detector*

Unruh-DeWitt detector at work:
Thermality of circular acceleration probed by a quantum dot

States of quantum fields, such as the Minkowski vacuum, are often characterised by their global properties, such as their exact, approximate or asymptotic symmetries. Yet experiments on quantum fields, gedanken or otherwise, concern observations localised in space and in time. The Unruh-DeWitt (UDW) detector, introduced in the seventies, provides an idealised but unreasonably efficient theoretical model of a space-and-time-localised quantum system interacting with a quantum field, able to extract locally information of a global flavour, such as the Hawking and Unruh effects. In this talk we discuss the information that an UDW detector can extract about the thermality of circular acceleration, first in the usual relativistic setting, and then in an analogue spacetime setting, motivated by proposed condensed matter experiments. We highlight some key issues in the correspondence between an UDW detector and conventional laser interferometry setups.