



## **Towards a direct observation of the Unruh effect**

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According to the quadragenarian Unruh effect, accelerated enough observers in the usual (inertial) vacuum, could, in principle, burn in a thermal bath of elementary particles in contrast to inertial observers who would freeze to death at 0 K. The Unruh effect has vindicated Fulling's previous discovery that the particle concept in quantum field theory is observer dependent. In spite of the enormous conceptual impact of this discovery, the observability of the Unruh effect is still an issue, since the linear acceleration needed to reach a temperature 1 K is about  $10^{20}$  m/s<sup>2</sup>. Any observation of the Unruh effect must rely on resilient probes entrusted to record the Unruh effect and make the information available to inertial observers. In this talk we discuss an experiment feasible under present technology whose output can be crystal-clearly interpreted in terms of the Unruh effect and our efforts to realize it. Our probes are accelerated electrons and the information on the Unruh effect is recorded in the Larmor radiation which can be easily measured by inertial observers.