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Universal Horizons in Collapsing Reissner-Nordstrom Metrics

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An investigation of an analogous structure to an event horizon in theories which break Lorentz symmetry. Recent work has shown that in simple spacetimes Lorentz violating theories, such as Einstein-Aether or Horava-Lifshitz, singularities lie behind a *universal horizon*. In the limiting case, signals travel along an incompressible aether which results in an infinitely fast speed of propagation. Despite this property, a universal horizon always appears to form around a singularity disconnecting a region of spacetime from the larger universe. This talk will look at how these structures form during the collapse of a massive charged shell.

Primary author: MEIERS, Michael

Co-authors: Mr SARAVANI, Mehdi (Perimeter Institute); AFSHORDI, Niayesh

Presenter: MEIERS, Michael

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