

OSE SEMINAR SERIES

Professor Terry A. Loring

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Topologically Protected Edge States on Quasicrystals

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P&A, Rm. 190 from 11:00 AM – 12:00 PM



Abstract:

Topological insulators, topological superconductors and photonic topological systems are of interest predominantly because of the robustness of their edge states. The mathematics behind this robustness, called K-theory, generally relies on some periodicity that enables the construction of some variation on momentum space. I will present a simple method to introduce a form of K-theory into any problem involving approximately compatible observables. This can be used to validate the robustness of the edge states on various model systems built on quasicrystals.

Biography:

Terry Loring has been a mathematics professor at UNM for a quarter century. With papers published mainly in the area K-theory, his publications now include many papers in physics journals, with an emphasis on disordered topological insulators and superconductors.

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