

## **abstract**

GEOMETRY AND MATERIALS SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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Focal conic domains are typically the "smoking gun" by which smectic liquid crystalline phases are identified. The geometry of the equally-spaced smectic layers is highly generic but, at the same time, difficult to work with. We have developed an approach to the study of focal sets in smectics which exploits a hidden Poincaré symmetry revealed only by viewing the smectic layers as projections from one-higher dimension. We use this perspective to shed light upon several classic focal conic textures, including Apollonian packings, the concentric cyclides of Dupin, polygonal textures and tilt-grain boundaries.