

# Stanford Department of Mathematics Colloquium

November 11

4:15 p.m.

Bldg. 380, Room 380-W.

## A Trinity of Quantizations

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### Abstract

Abstract: Given a geometric object, we often care most about its quantum incarnation – for example, given a group, its representations are often of primary interest. The passage from classical to quantum frequently discards awkward choices and hence reveals hidden symmetries. I will describe three quantizations of cotangent bundles coming from topology (constructible sheaves), algebra (linear differential equations), and analysis (Floer theory). Each has its own benefits and drawbacks, generalizations and applications. The fact that they are all equivalent has surprising consequences for each approach and suggests many further directions.

<http://math.stanford.edu/coll/0910/>