

abstract

Joint IAS-PU Symplectic Geometry Seminar
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

A symplectic pencil is a linear family of symplectic forms, i.e., a linear space of two-forms, each of which, except of course the zero form, is symplectic. Symplectic pencils arise, for instance, from representations of Clifford algebras and can be thought of as an analogue of the symplectic structure in one interpretation of the least action principle with multi-dimensional time.

In this talk, based on a joint work with Viktor Ginzburg, we discuss and prove a version of the Arnold conjecture, both the degenerate and non-degenerate cases, for target manifolds equipped with Clifford pencils of symplectic structures and the domains (time-manifolds) equipped with frames of divergencefree vector fields. This result generalizes the original work on the hyperkahler Arnold conjecture by Hohloch, Noetzel and Salamon for three-dimensional time and also a previous work by Ginzburg and the speaker.