
GEMSTONE MINI-COURSE: VARIATIONS OF GEOMETRY AND SPECTRUM

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In the 70's, Vladimir Arnol'd and Karen Uhlenbeck independently introduced transversality into spectral geometry. For example, Uhlenbeck used it to show that in some basic contexts the set of triples (eigenvalue, eigenvector, domain) has a natural manifold structure. In this lecture I will describe the basic idea of parametric transversality, its original application by Uhlenbeck, and how it continues to serve us.