Workshop on Topology: identifying order in complex systems

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Improvements in information technology have revolutionized the way scientists and engineers record and simulate complicated phenomena. The organization and understanding of this data requires new techniques.

On the mathematical side, topology provides concepts and computational tools for studying nonlinear objects and transformations. The goal of this seminar series is to direct and expand these concepts and tools toward the above mentioned applications.

The seminars will meet on the first wednesday of each month, alternating between the IAS and Rutgers. There will be a mix of lectures by topologists, by scientists in fields with topological applications, and by people doing topological computations. The lectures will be aimed at a broad interdisciplinary audience, and are intended to provide a forum for discussing current and future applications of topological techniques, both theoretical and computational.