





PROF. ALAN WEINSTEIN

U.C. – Berkeley

will speak on

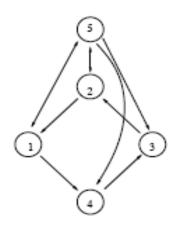
Symmetry groupoids of crystals and networks

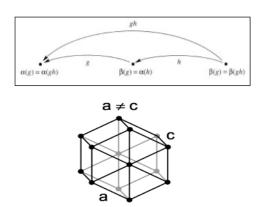
Thursday, April 27, 2006 7:00 - 8:00 pm Filene Auditorium

Abstract. Symmetry in nature is traditionally described mathematically in terms of the action of *groups*, such as the symmetry group of a crystal. But some materials, built of highly symmetric layers which may be stacked in an asymmetric way, admit only partial symmetry, for which the appropriate mathematical description is a more general object known as a *groupoid*. Groupoid symmetry has also been used to analyze coupled networks, such as those which control animal locomotion. In this talk, we will introduce the basic definition and elementary theory of groupoids, motivated by these examples from crystals and networks. No knowledge of standard group theory is assumed.

All Undergraduate Students are Welcome!

For more information contact: Prof. Jody Trout at 646-2958





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	Groups	Group Actions	
		Sets	
Groupoids		Equivalence Relations	
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