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**Speaker:** Kyle Riggs  
Indiana University, Bloomington

Thursday, November 21, 2013  
2:00 PM  
125 Hayes-Healy Hall

**Title:** Decomposable and Completely Decomposable Groups

**Abstract:**

An abelian group is decomposable if it can be written as a direct sum of nontrivial subgroups, and it is completely decomposable if it can be written as a direct sum of subgroups of  $\mathbb{Q}$ . Algebraists have never been able to completely classify the decomposable torsion-free abelian groups, and we shall see that this is because this class of groups is analytic complete.

We will also describe which elements of a subclass of completely decomposable groups have computable presentations. The work that had previously been done on these groups revealed results that could be stated concisely, but when we examine a slightly larger subclass, we get something much more complicated.