



UW-L Mathematics Department

Undergraduate Colloquium Series

An Introduction to Noether's Theorem

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Noether's Theorem is a seminal work of modern mathematics and is one of the most widely used results in theoretical physics. Roughly speaking, it tells us that if a physical system possesses symmetries, then one can define a physically invariant quantity to the system; e.g. conservation of energy and conservation of momentum are consequences of Noether's Theorem.

The talk is intended to illustrate the connection between symmetries and conservation laws. Many important ideas in modern mathematical physics will be discussed, including: symmetries, group theory, mechanics, and smooth manifolds. Each of these topics will be introduced in a semi-informal way through examples, so no previous knowledge is assumed. All are welcome to attend!



Wednesday, December 7th
Time: 3:30-4:30pm

All Welcome to Attend
Cowley Hall 156