HIGHER ORDER ALEXANDER MODULES

PRUDENCE HECK

INDIANA UNIVERSITY

The Alexander module is a fundamental invariant in knot theory. In this talk the Alexander module will be defined, and then it will be shown why it is important and why one might like to generalize this module. The generalization is hard, and some explanation will be given as to why this is the case, and what properties of knot groups make it possible. Finally, higher order Alexander modules will be defined. This talk should be suitable for anyone who understands homology with coefficients.