

## THE DEPARTMENT OF MATHEMATICAL SCIENCES PROUDLY PRESENTS

## COLLOQUIUM

## Computing in Algebra

Dr. Irena Swanson Purdue University March-17-2022 10:30 am



This talk will be about computability on abstract algebraic structures, such as on ideals and rings. The main tool in computations are Groebner bases, which were invented and developed by Bruno Buchberger in 1965 for ideals and which have since been applied in many contexts. The focus of the talk will be on primary decompositions and integral closure, as well as on computational complexity. The talk will include some old and some very new results.

