

COLLOQUIUM

Matt Evans Visiting Assistant Professor Department of Mathematics Oberlin College

Spectra of Commutative BCK-Algebras Friday March 26th at 3pm on Zoom

https://csuohio.zoom.us/j/91945126460

Bio: In June 2020 Dr. Evans finished his PhD at Binghamton University working under Fernando Guzmán. His research interests are in universal algebra, particularly ordered algebraic structures. Specifically, he studies the ideal theory and spectral properties of commutative BCK-algebras. He is also interested in the interplay between the category of commutative BCK-algebras, the category of generalized spectral spaces, and the category of distributive lattices (with zero).

Abstract: BCK-algebras are the algebraic semantics of a non-classical logic. Like for commutative rings, there is a notion of a prime ideal in these algebras, and the set of prime ideals is a topological space called the spectrum. By work of Stone (and later, Priestley), there is a close connection between these spectra and distributive lattices with 0. In this talk I will discuss some recent results on the interplay between commutative BCKalgebras, their spectra, and distributive lattices.