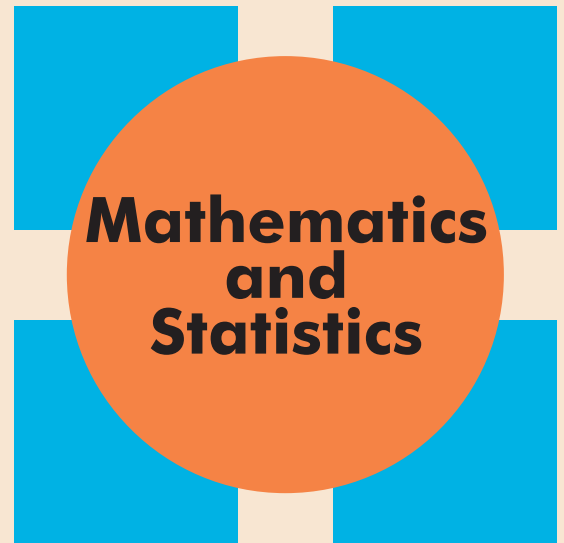


PRAIRIE MATH COLLOQUIUM

Derek Krepski
University of Manitoba

Infinitesimal symmetries of bundle gerbes



Date: Friday February 7, 2020

Time: 3:30 - 4:30 PM

Room: RI 209 (live stream)

Abstract: The study of gerbes in differential geometry has its origins in the work of Brylinski in the 1990s, and was soon after made more user-friendly through the work of Hitchin and Chatterjee, and ultimately Murray's 'bundle gerbes'. Bundle gerbes are analogous to principal $U(1)$ -bundles (or complex line bundles), in the sense that bundle gerbes are geometric realizations of degree 3 cohomology, as $U(1)$ -bundles are in degree 2. In this talk, we discuss bundle gerbes and consider their infinitesimal symmetries (i.e., vector fields on them), and present some recent related developments in a joint project with Jennifer Vaughan.