

Michigan Math Club

Thursday at 4pm in the Commons
Free Pizza and Pop



Sit, Stand, and Spin: Unusual waves in curious media

Prof. Jack Waddell

Abstract for 23 October



What do bees on a hive, cells on the heart, and fans in a football stadium have in common? Each is an example of an excitable medium, which is characterized by one of three states at each point: active, refractory, or excitable. Excitable media are capable of supporting odd and beautiful wave modes, including circles and spirals, but the same waves that save bees from wasps can send a heart into tachycardia. We'll explore these phenomena and some simple models that describe them.