

# SE&T Colloquium Series-Winter 2015

Speaker	Dr. James Alsup University of Michigan-Flint
	Host: Patrick Pan
Title	<i>How to build a superconductor with a black hole</i>
Abstract	<p>String theory has been a major source of excitement in theoretical physics. The theory has developed over the last four decades in the hope of providing a "theory of everything," explaining all of matter and forces in terms of incomprehensibly tiny strings. However, new insights have provided another pathway for the theory to develop by way of applications.</p> <p>One of the most studied applications is superconductivity. In the lab, it has been found that if a particular metal is cooled down to a low enough temperature a current will be able to flow with absolutely no resistance. As of now, there is no comprehensive theory explaining how this happens.</p> <p>In this talk, I will discuss what string theory can offer for our understanding of superconductors and how the rules of quantum mechanics can be phrased in terms of a ten-dimensional black hole.</p>
Date	Tuesday, March 24
Time	4:10-5:00pm
Place	Pioneer 240
	Refreshments will be served at 4:00pm.