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# Twelfth Annual Baylor Lecture Series in Mathematics

Thursday, April 4, 2019 at 4:00 pm  
Marrs McLean Science Building MMSci 101

Baylor University  
Waco, Texas

## Integral Quadratic Forms and Applications

Quadratic Diophantine equations (sums of integer squares) have fascinated mathematicians for centuries however even today some of the finer local to global questions are not understood, and the complexity of finding solutions is challenging. We will explain and review these features and highlight some applications, for example to quantum computation with the construction of optimal universal quantum gates.



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