

From: [Dang, Quynh \(Fed\)](#)
To: [Dang, Thinh H. \(Fed\)](#)
Subject: MUST attend! 10 to 11: Room A318!
Date: Wednesday, January 11, 2017 9:39:21 AM

From: Chen, Lily (Fed)
Sent: Monday, January 9, 2017 8:54 AM
To: internal-crypto; Liu, Yi-Kai (Fed); Jordan, Stephen P (Fed); Miller, Carl A. (Fed); Jacob Alperin-Sheriff [\(b\) \(6\)](#)
Subject: A Talk by Dr. Bill Fefferman - This Wednesday (March 11)

Dear ALL:

Dr. Bill Fefferman from University of Maryland, College Park will come to give a talk this Wednesday 10-11 in room A318. Please see the title and abstract below. I am sure this is a topic many of us are interested.

See you there,

Lily

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Title:

Characterizing the power of quantum computation

Abstract:

More than two decades after Shor's discovery of an efficient quantum factoring algorithm, we still do not have a complete knowledge of the power of quantum computation. In fact, despite the prevailing belief that quantum computers are more powerful than their classical counterparts, this still remains a conjecture backed by little mathematical evidence. Likewise, we cannot rule out the possibility that quantum computers can efficiently solve problems far harder than factoring. Obtaining a better understanding of this power will therefore be crucial to understanding cryptography in the near future. In this talk we will both introduce new capabilities for quantum computers and rigorously characterize the limitations of their power.