



**UCD School of  
Mathematics and Statistics**

University College Dublin  
Belfield, Dublin 4, Ireland

Tel +353 1 716 2580  
Fax +353 1 716 1196

**Scoil na  
Matamaitice agus na Staitisticí UCD**

An Coláiste Ollscoile, Baile Átha Cliath  
Belfield, Baile Átha Cliath 4, Éire

Email [seminars@maths.ucd.ie](mailto:seminars@maths.ucd.ie)  
Web [maths.ucd.ie/seminars](https://maths.ucd.ie/seminars)

## Analysis Seminar

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**A. Müller-Hermes (Copenhagen)**

will speak on

**Positive maps in quantum information theory**

Tue 13th February 2018 at 4:00PM

Location: SCN 125

Many problems in quantum information theory are connected to properties of positive linear maps between matrix algebras. After a brief introduction to some basic concepts of quantum information theory I want to focus on the problem of entanglement distillation. I will explain how this problem is connected to the existence problem of positive linear maps that stay positive under taking tensor powers and that are neither completely positive nor completely co-positive. If time permits I will outline some constructions of interesting positive maps and how non-decomposability arises naturally from tensorisation.

This talk is part of the **Analysis** series. For more, see  
<https://maths.ucd.ie/seminars>