



LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN

Fakultät für Mathematik, Informatik und Statistik
Mathematisches Institut



Colloquium CRC TRR 352

Mathieu Lewin
(CNRS)

**“Chemists and physicists have found how to approximate
Schrödinger's equation; here is how mathematicians can
contribute”**

Thursday, May 04, 2023, 4.30 pm

LMU, Theresienstr. 39, A 027

Zoom: <https://lmu-munich.zoom.us/j/6502513704?pwd=TmluWVhURVcyd3d3MmJwdWI3WEIldz09>

ID: 650 251 3704
Code: 016254

Abstract: Schrödinger's equation is a beautiful piece of mathematics. It fits on just one line and is supposed to accurately describe the behavior of most atoms and molecules of our world. But it is essentially impossible to simulate accurately, due to its very high dimensionality. In this talk I will explain how physicists and chemists have overcome this problem in an impressive way, within a framework called "Density Functional Theory". I will discuss the role that mathematical results have historically played in this revolution and then present more recent results.