

# **Tadahiro Miyao**

## **(University of Hokkaido)**

Thursday, April 27, 2023, 16:00

### **Magnetic properties of ground states in many-electron systems**

University of Tübingen, Mathematics Department, C3N14 and via Zoom:

<https://zoom.us/j/94274376976?pwd=YVBvU2tNMTBXSGxGYVg4eUoyV1ZiQT09>

Meeting-ID: 942 7437 6976

Passcode: 929851

Abstract: A mathematical understanding of the mechanism of metallic ferromagnetism still needs to be completed. In this talk, the following three fundamental theorems on metallic ferromagnetism will be first outlined: the Marshall-Lieb-Mattis theorem, the Lieb theorem, and the stability theorem of Lieb ferrimagnetism. Next, I will outline a mathematical framework within which these theorems can be unified. The theory is formulated using the standard forms of von Neumann algebras.