



Leibniz  
Universität  
Hannover

## Oberseminar Analysis und Theoretische Physik

# Prof. Dr. Julie Rowlett

Chalmers University of Technology and University of Gothenburg

## The strength of diversity

Diversity can be beneficial in many contexts. In business, research, and education diversity can not only increase creativity by providing a wider variety of perspectives but also increase impact through a larger network. In biology, biodiversity is often correlated to the overall health of an ecosystem, perhaps because a diverse ecosystem has a greater capacity for adaptive responses to new challenges. In finance, a cornerstone of modern portfolio theory is diversification of investments. I will first discuss joint work with CJ Karlsson and M Nursultanov. Our main results are 'the diversity theorems' which show that teams of diverse individuals are strong in competition with other teams of individuals. The proof of these theorems are based on game theoretic models that interpolate between individual-level interactions and collective-level ramifications.

In joint work with Hannover's very own J Klünder as well as J Guldhalm and J Stålborg we tested the theoretical predictions using a tremendous amount of data from professional football (soccer). In conclusion, I will discuss the results of our joint work and further investigations.

**Dienstag, 25.10.2022, 15:00 Uhr, Raum c311**

**Hauptgebäude der Leibniz Universität**

Dazu laden herzlich ein:

Prof. Dr. Wolfram Bauer, Prof. Dr. Joachim Escher, Prof. Dr. Johannes Lankeit,  
Prof. Dr. Elmar Schrohe, Prof. Dr. Christoph Walker