

## Master of Statistics and Data Science - master thesis topic 2021-2022

Title :

**Uncover spiders in the Network**

**Name promoter:** Jan De Spiegeleer (Dept. Mathematics)

**Thesis topic is for**

- ☒ one student
- ☐ two students
- ☐ one or two students

**Available for students from:**

- ☐ Statistics and data science for Biometrics
- ☐ Statistics and data science for Social, Behavioral and Educational Sciences
- ☒ Statistics and data science for Business
- ☐ Statistics and data science for Industry
- ☒ Theoretical Statistics and Data Science
- ☒ Interdisciplinary Statistics and Data Science

**The working area is**

- ☒ KU Leuven
- ☐ a company outside KU Leuven: ....

**Description:**

An investment manager that has investment discretion over \$100 million or more in financial instruments, must report its holdings quarterly on a so-called "Form 13F" with the Securities and Exchange Commission (SEC) of the United States. These reports are well documented and can easily be extracted from the website of the SEC (<https://www.sec.gov>).

This quarterly report is a perfect source of information to investigate how financial markets are connected. If too many investment firms are invest in the same shares, this can cause a significant problem to the financial stability.

**Requirements:**

- Good working knowledge of python
- Having followed the course Modern Data Analytics (G0Z39a) is considered a plus
- Having a keen interest in financial markets in general