# *Mathematical Finance: MF*
Exercises (for discussion on Monday, 15.01.2023)

**Exercise 1.** (*4 bonus points*)
Is there a filtration $(\mathcal{F}_n)_{n\in\mathbb{N}}$ with $\mathcal{F}_n \subsetneq \mathcal{F}_{n+1}$ for all $n \in \mathbb{N}$ such that $\bigcup_{n\in\mathbb{N}} \mathcal{F}_n$ is a $\sigma$-algebra?

*Submission of the homework until: Thursday, 11.01.2024, 10.00 a.m. via OLAT.*