



**Exercise sheet 4**

**Submission:** 07.05.2019

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**Problem\***

**(4 additional Points)**

Prove Lemma 5.1.

*Hints:*

- Note that subsets of null sets are null sets.
- Show that  $\{F \subseteq \Omega : \exists G \in \mathcal{F}_t^B \text{ s.t. } F \Delta G \in \mathcal{N}\}$  is already a  $\sigma$ -algebra.

**Total: 4 additional Points**

**Terms of submission:**

- Solutions can be submitted in groups of at most 2 students.
- Please submit at the beginning of the lecture or until 9:50 a.m. in room 3523, Ernst-Abbe-Platz 2.