



Universität  
Basel

## Research Project

### Clean Zigzag and Armchair Graphene Nanoribbons

#### Third-party funded project

**Project title** Clean Zigzag and Armchair Graphene Nanoribbons

**Principal Investigator(s)** [Zumbühl, Dominik](#) ;

**Co-Investigator(s)** [Loss, Daniel](#) ;

**Organisation / Research unit**

Departement Physik / Experimentalphysik Quantenphysik (Zumbühl)

**Department**

**Project start** 01.01.2015

**Probable end** 31.12.2018

**Status** Completed

In the envisioned experiments, we will develop new fabrication techniques aimed at creating ultra-clean graphene

nanoribbons with high-quality zigzag or armchair edge termination. We will perform low-noise electronic transport

measurement at low temperatures in magnetic fields in order to investigate novel quantum states of matter

such as graphene ballistic 1D modes, edge antiferromagnetism, helical states and Majorana fermions.

**Financed by**

Other sources

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