



**Predictability of Lightning in Complex Terrain**



## The Presenter

### Present:

- PhD Student at the Institute of Atmospheric and Cryospheric Sciences (University of Innsbruck)

### Past:

- Pricing Analyst at Zurich Insurance Group
- MSc Statistics (ETH Zurich, Switzerland)
- BSc Mathematics (The University of Warwick, UK)

### My connection to atmospheric sciences/ meteorology:

- None



## The Project – What, Why & How?

### What?

- Main goal: Determine how far into the future lightning can be predicted in the Eastern Alps

### Why?

#### Why predicting lightning?

- Lightning can harm people and damage goods
- Lightning can lead to power outages
- Lightning can be predicted only minutes to hours in advance

#### Why in the mountains?

- Mountains → persistent flow patterns → might extend the predictability



## The Project – What, Why & How?

### How?

- Lightning detection network → lightning observations in space and time (i)
- Numerical weather prediction (NWP) model → weather forecasts (ii)
- Statistical post-processing of NWP output → relationship between (i) and (ii)