

## Temporal and spatial trends in precipitation in an Alpine catchment

Lindsey Nicholson<sup>1</sup>, Calum Winter<sup>2</sup>, Rainer Prinz<sup>1</sup>, Michael Kuhn<sup>1</sup>

1 University of Innsbruck

2 Scotlands Railway

Analysis of 60 years of totalizing rain gauge data in Rofental, in the Ötztal Alps shows that monthly and seasonal variability in precipitation totals has increased since the 1960s, with a general increase in winter precipitation and a, statistically insignificant, decrease for spring and summer. There are also notable changes in the spatial distribution of precipitation, with the mean altitudinal gradient across totalising gauges decreasing for all seasons, most significantly in winter where a negative gradient was found for a number of seasons in the early 2010s. These changes are shown to have possible links to synoptic changes between the 1980s and present day.