

# Interview with early career scientist

*Andreas Prein*



***What is your biggest source of inspiration in pursuing your career in climate science? Or, what do you see as the biggest challenge of current/future climate science you wish to address?***

*Growing up in the European Alps I became fascinated by weather and climate at a young age. Seeing how fast this vulnerable Alpine environment changed got me curious to study the processes that cause these changes. My goal was to improve our understanding of climate change impacts on our environment and to increase public awareness of the causes and effects of these changes. Shortly after moving into climate research I started focusing on weather and climate extremes due to their significant impacts on the environment and society. One of the biggest challenges in climate research is to observe and understand the connections in the climate system. My current research focuses on connections between atmospheric processes on different scales, e.g., severe convection embedded in frontal systems. In the future, I want to extend this research to interactions between different components of the climate system such as the atmosphere, water in different phases, land, vegetation, and humans.*

***How would you see yourself contributing to climate science in the next 10 years?***

*Deep convective processes are the main driver of the global atmospheric circulation and are causing various extreme events including flooding, hail, or damaging wind. State-of-the-art climate models, however, poorly represent deep convection, which causes large model errors and uncertainties in climate predictions and projections. I am currently working on an improved representation of deep convective processes in climate models. A promising pathway are so-called convection-permitting models that allow to explicitly simulate deep convection instead of parameterizing it. I am convinced that these models will revolutionize our ability to simulate atmospheric processes on various scales and improve the representation of feedbacks between different components of the climate system within the next 10 years.*