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Seminar über Microwave Physics and Atmospheric Physics

Referent/in: Dr. Lorena Moreira, International Space Science Institute, Bern

Titel: Origin of the regional and interannual variability in sea level

Satellite observations have shown that present-day global mean sea level is rising and even accelerating. They have also revealed important regional differences in the rates of sea level rise, up to 3 times the global mean in some regions. While the origin of the global mean sea level rise is now well known (ocean thermal expansion and land ice melt), the causes of the regional variability are less well studied. In the first part of my presentation, I will focus on the phenomena that are suspected to cause the observed spatial trend patterns in sea level. Current knowledge is that the regional variability is mostly driven by the natural climate variability (e.g. ENSO), unlike the global mean rise that mostly results from anthropogenic global warming. In the second part, I will discuss the interannual fluctuations observed in the global mean sea level and show that here also, the natural climate variability plays a dominant role. I will also show that removing the interannual fluctuations is important to better estimate the global mean sea level acceleration. And in the final part, I will present the detection of sea level changes due to present-day land ice melt and terrestrial water mass changes.

Zeit: Freitag, 25. März 2022, 10:15 Uhr

Ort: <https://unibe-ch.zoom.us/j/97081325603?pwd=d0ozME5xOS9pQVNXallLem81VHQyZz09>

Meeting ID: 970 8132 5603

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