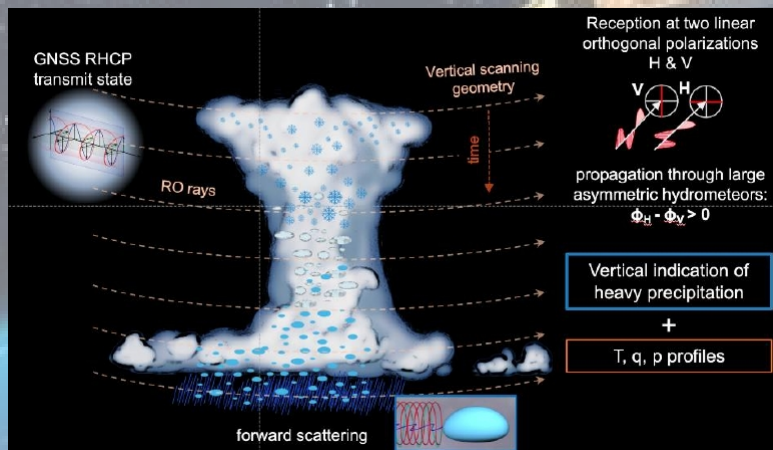


Polarimetric Radio Occultation is a new atmospheric sounding technique that has been validated with data from the Radio Occultations Through Heavy Precipitation (ROHP) instrument aboard the PAZ low Earth orbiting satellite.

In addition to the 'standard' GNSS radio occultation (RO) products (vertical profiles of T, p, q), this experiment exploits the polarimetric phase shift, $\Delta\phi$, between the horizontal and vertical polarization for detecting and quantifying hydrometeors (heavy precipitation events, convective rain, frozen particles and mixed phase).

The vertical structure of the hydrometeors, at a few hundreds of meter vertical resolution, emerges as the near-horizontal integral of the specific phase shift along the radio occultation link:



Status of the mission:

- Satellite launched Feb'2018.
- The **R**adio **O**ccultation and **H**eavy **P**recipitation experiment (ROHP-PAZ <https://paz.ice.csic.es>), was activated in May'2018.
- Data continuously acquired since then.
- Sensitivity of $\Delta\phi$ to hydrometeors.

Objectives of the workshop:

- Provide potential users with an understanding of the data, their geophysical content, possibilities and limitations.
- Enable data providers better understanding on the needs of scientific users, and link the two communities to develop new products and applications.

Target audience:

Scientists working on observational or modelling aspects of

- precipitation,
- convection,
- extreme events,
- microphysics schemes,
- model evaluation (climate, NWP),
- RO data assimilation

that might benefit from this expanded RO capability.

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