

Glaciohydrology of the Vilcanota basin, Peru

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The Vilcanota basin in southern Peru hosts the world's largest tropical ice cap, which is undergoing rapid change. Here we present the latest results of an extensive monitoring campaign in the headwaters of the Vilcanota basin and beyond, to understand the propagation of the glacier melt signal through the basin-scale hydrological cycle, and especially the mixing with non-glacial water stores and fluxes. We will put specific emphasis on early results of two isotopic sampling campaigns conducted earlier in 2022, which aimed at identifying the spatiotemporal dynamics of end member contributions.