

Interactive comment on “The Alaiz Experiment: untangling multi-scale stratified flows over complex terrain” by Pedro Santos et al.

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In their introduction, the authors provide a nice overview of recent campaigns focusing on flow features in complex terrain categorized after domain size and slope gradient. However, we think that they missed several recent relevant measurement campaigns siting in the center part of their diagram in Fig. 1. We encourage the authors to consider including these campaigns to complement their overview.

One is the PIANO campaign which took place in the Inn Valley over Innsbruck in Austria in 2017 focusing on cold pool and foehn interactions (Haid et al., 2020). Several scanning Doppler lidars were deployed in a complex scanning configuration consisting of coplanar RHI and PPI scans as well as vertical stare mode to get insight into the

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mean and turbulent structure of the three-dimensional flow.

Recent coplanar Doppler lidar measurements were conducted in the complex topography around the city of Stuttgart in south-western Germany focusing on mesoscale flow structures and convective cells (Adler et al. 2020).

In 2019, a set of six Doppler lidars was deployed about 20 km east of Innsbruck in the Inn Valley to study the three-dimensional flow structure in the valley under different synoptic conditions. Three of the lidars performed synchronized coplanar RHI scans to capture the cross-valley kinematic flow structure across the whole valley. A BAMS paper about the campaign and measurements is currently under review (Adler et al. 2020). Some information on the campaign were presented during the 19th Conference on Mountain Meteorology (<https://ams.confex.com/ams/19Mountain/meetingapp.cgi/Paper/376136>) and on the KIT website (https://www.imk-tro.kit.edu/english/844_8306.php).

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