



LIAISE: Land surface Interactions with the Atmosphere over the Iberian Semi-arid Environment

Chawn Harlow, John Edwards, Jennifer Brooke, and Martin Best
Met Office, UK

Semi-arid regions, of which the Mediterranean is one, pose a significant challenge due to the highly heterogeneous nature of the land cover, whilst also being a region of higher atmospheric sensitivity to the land surface. Currently the Met Office Unified Model (UM), similar to other modelling centres, has known model biases within these environments, but it is difficult to identify the cause of such biases, often due to the lack of critical observations. These model biases exist across diurnal and seasonal timescales.

We are considering the possibility of undertaking an observational study within a semi-arid environment on the Iberian Peninsula. The LIAISE (Land surface Interactions with the Atmosphere over the Iberian Semi-arid Environment) campaign will bring together ground-based and FAAM airborne measurements and modelling studies to lead to an improved understanding of processes such as soil moisture, evapotranspiration and precipitation coupling and the subsequent feedbacks to the Mediterranean boundary layer. A better quantification of the errors through a targeted observational campaign could lead to improvements in predictions at all scales. However, we recognise that such a campaign undertaken in isolation would not deliver the observational bases hence we intend to gauge the interest for a multi-institute campaign with European partners to maximise the benefits.