

Interactive comment on “Improving mid-altitude mesoscale wind speed forecasts using LiDAR-based observation nudging for AirborneWind Energy Systems” by Markus Sommerfeld et al.

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Although they don't apply specifically to the paper and the method proposed by the authors, in my opinion the remarks posted by M.Ippolito will be very useful to the authors in order to refine their findings and address some specific use case for their data, eventually in future works. It is true, indeed, that the players in HAWES (I find more correct the collective definition of High Wind Altitude Energy Systems, rather than Airborne Wind Energy that recalls the systems that fly a turbine) have different architectures that rely on different wind profiles at different altitudes. Try to determine a priori the best

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wind and altitude conditions without distinguishing based on feasible architectures is less useful, from the point of view of the developer that reads the paper, than focusing on specific selected architectures, defining the best conditions for them. In other words maximizing peak power (as the focus on best traction conditions seems to suggest) or maximizing capacity factor (as in the architectural remarks from Ippolito) requires approaches that are very different from each other.

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