

Interactive comment on “Towards predictive data-driven simulations of wildfire spread – Part 2: Ensemble Kalman Filter for the state estimation of a front-tracking simulator of wildfire spread” by M. C. Rochoux et al.

Anonymous Referee #1

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This paper presents a data assimilation approach to fire spread modelling. The approach is novel and scientifically sound. It is worth noticing that it constitutes an alternative to physical fire spread modeling, which is not yet available for operational use due to the knowledge gaps that still exist in wildland fire science. This approach potentially allows to extend the use of simpler semi-empirical models that have proved being limited in their ability to accurately forecast wildland fire spread. I understand that the use of the model FireFly is not critical to this work and works only as an illustrative example for the methodology but I advise the authors to use other models in

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the future, which are more realistic in their description of fire behavior. An interesting task would be to use simplified physical models, which are available in literature and not semi-empirical models based on Rothermel's model.

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