



Contribution ID: 389

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## Twisting the ensemble Kalman filter with random forest

Thursday, 2 June 2022 09:40 (15 minutes)

A reformulation of the ensemble Kalman filter is presented in which the updating step is changing from a linear combination of discrepancies between observed and predicted state variables onto a random forest regressor. The method is demonstrated in a synthetic aquifer and the advantage of the new formulation is discussed. Research financed by grant PID2019-109131RB-I00 funded by MCIN/AEI/10.13039/501100011033 and the InTheMED project, which is part of the PRIMA Programme supported by the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 1923.

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### Country

Spain

### References

### Time Block Preference

Time Block A (09:00-12:00 CET)

### Participation

In person

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**Session Classification:** MS15

**Track Classification:** (MS15) Machine Learning and Big Data in Porous Media