



## **Distinct dynamical regimes in monsoonal paleo-records and the role of solar forcing**

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Monsoons tend to fluctuate between regimes of different dynamics over varied time scales. So it is important to not only identify the transitions in monsoonal systems but also the multiple dynamical states of a monsoonal system and their corresponding time scales. We present a method to identify distinct dynamical regimes in a time series by comparing different segments of the time series using recurrence plots. We use this method on paleo-records from lakes and speleothems from East Africa and South Asia respectively to identify the time periods of similar dynamics of monsoon. Further we try to compare the identified regimes with changes in solar forcing .