

## Simulation of water origins over the Asian Monsoon Regions by using Colored Moisture Analysis (CMA) with JRA25 reanalysis

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Stable isotopes in meteoric precipitation are strongly influenced by the water vapor source and trajectory history and can be used to reconstruct the atmospheric circulation (Burnett et al., 2004). Water origins of daily precipitation in the Asian Monsoon Region were estimated using Colored Moisture Analysis (Yoshimura et al., 2004), meteorological forcing data with JRA25 reanalysis dataset. Ichianagi et al. (2005) considered the transition of the water origins over Indochina Peninsula in 2001 using CMA with NCEP/NCAR reanalysis dataset, and proposed a new definition of the withdrawal date of the Asian summer monsoon as a transit of water origins from Indian Ocean to Pacific Ocean. The same concept of estimating water origins was applied to define both the onset and withdrawal dates of Asian summer monsoon over the Indochina Peninsula and Indian subcontinent from 1979 to 2003. The interannual variations of the onset and withdrawal dates of Asian summer monsoon are shown in this study.