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MJO Initiation: A Biennial Report of the CINDY/DYNAMO Field Campaign

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Two years after the MJO Field Campaign over the Indian Ocean and adjacent regions during October 2011 – March 2012, research results based on field observations have emerged on a number of topics. This talk briefly summarizes those that are reported in journal articles, submitted or published. Covered results are organized into three categories pertaining to convective initiation of the MJO over the Indian Ocean: (1) Testing the DYNAMO hypotheses proposed to guide the design and operation of the field campaign (convection interaction with its environmental moisture, cloud population evolution, air-sea interaction), (2) Investigating issues not included in the DYNAMO hypotheses but important to the MJO (e.g., cold pools, subtropical dry-air intrusion, the diurnal cycle, hydrometeor distribution in convective cloud), and (3) Exploring new topics surfaced during and after the field campaign (e.g. ITCZ-MJO interaction, roles of the Maritime Continent and western Pacific, effect of vertical wind shear).