Supporting Information for “The Madden Julian Oscillation in an Aquaplanet-like General Circulation Model with and without Continents”

Surajit Das¹, Debasis Sengupta¹², and Arindam Chakraborty¹²

¹Centre for Atmospheric and Oceanic Sciences, Indian Institute of Science
²Divecha Centre for Climate Change, Indian Institute of Science

Introduction

Figure S1 shows the normalized spectra of precipitation in the near-equatorial region. The (aqua_20) experiment shows wavenumber one MJO-like signal (Figure S1b). In cont_20, overall MJO variance is relatively low, but also appears at wavenumbers 2 – 3 (Figure S1c). However, in jan_SST the MJO signal shows stronger variance at wavenumbers 2 – 5 (Figure S1d) in closer agreement with observation (Figure S1a).
Figure S1. Wavenumber-frequency spectra of 10°S–10°N summed precipitation divided by the background power from a) ERA_Interim, b) aqua_20, c) cont_20 and d) jan_SST but for 15°S–0°. Values of spectral power greater than 1.1 (shaded) are significant at 95% level. Frequency is in cycles per day. In Figure 3 of the main text, we have shown the raw spectra.