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Department of Atmospheric Sciences Seminar Announcement

Department of Atmospheric Sciences, S.O.E.S.T., University of Hawai'i at Mānoa
2525 Correa Road, HIG 350; Honolulu, HI 96822 ☎956-8775



Modeling Return Periods of Tropical Cyclones in The Vicinity of Hawaii

Xinping Zhang

Masters Candidate

Department of Atmospheric Sciences
School of Ocean and Earth Science and Technology
University of Hawai'i at Mānoa

You are invited to a Zoom meeting.
When: May 12, 2021 at 3:30PM HST

Register in advance for this meeting:

<https://hawaii.zoom.us/meeting/register/tJYvfurD8jEtb2-aKc4ISPr4W9YuHre-tE>

After registering, you will receive a confirmation email containing information about joining the meeting.

Abstract:

The tropical cyclone is one of the most destructive natural disasters for Hawaii. Tropical cyclones have caused a great number of damages on human lives and economies. The return periods of tropical cyclones in the vicinity of Hawaii can give the important tropical cyclone climate information to the government, insurance companies, engineers, and publics. This seminar will introduce a statistical model to estimate the return period of tropical cyclones in the vicinity. It contains the Poisson regression, the Gaussian-kernel density estimate, the extreme value distribution, and other statistical methods. Comparing the results in this model with the previous research based on the dataset from 1970 to 1995, high intensity of tropical cyclones' return periods becomes shorter indicating the higher risk from tropical cyclones in Hawaii.