## EEES Department Seminar

Some (Useful) Statistical Tools for Environmental Research

Dr. Whitney Huang
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In this talk I will first introduce two statistical tools, namely, Gaussian process regression and extreme value statistics, where Gaussian process regression is very useful for fitting a curve/surface and for quantifying its estimation uncertainty, while extreme value statistics allows for efficient statistical inference of extreme events. I will then present several applications: modeling high-frequency oscillatory biomedical signals in the context of sleep telemedicine; estimating climate extremes in a warning world; quantifying storm surge risk via a physical-statistical approach.
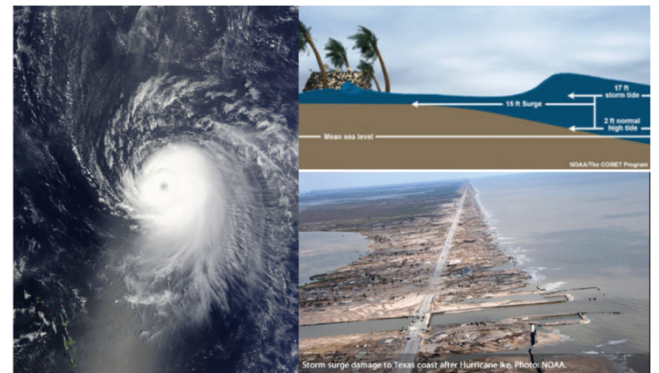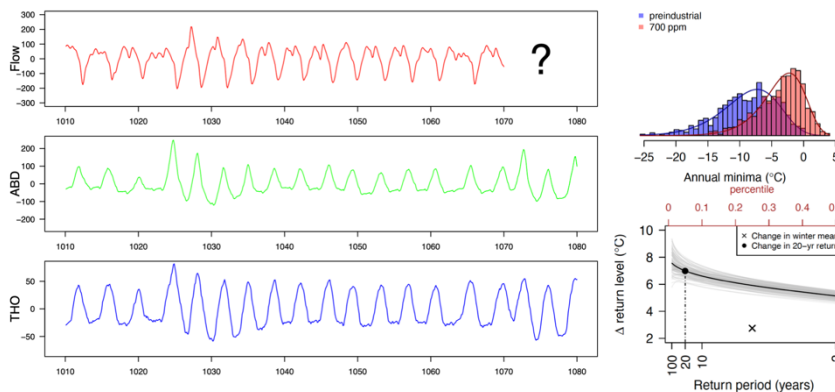
About Dr. Whitney Huang:

Dr. Whitney Huang is an Assistant Professor at the School of Mathematical and Statistical Sciences at Clemson University. Prior to Clemson he was a joint Canadian Statistical Sciences and Statistical and Applied Mathematical Sciences Institute postdoctoral fellow, where he spent one year at the University of Victoria, Pacific Climate Impacts Consortium and School of Earth and Ocean Sciences, working with Dr. Francis Zwiers and Prof. Adam Monahan, and one year at the University of North Carolina at Chapel Hill, Department of Statistics and Operations Research, under the supervision of Prof. Richard Smith. He received his Ph.D. in Statistics from Purdue University in August 2017 where he was advised by Prof. Hao Zhang. His research interests include statistics of extremes; spatio-temporal statistics; design and analysis of computer experiments; time-frequency analysis; high-frequency physiological data analysis.

2:30 PM

Friday, January 27, 2023

Brackett Hall 100

Attendance is mandatory for graduate students enrolled in

EES 8610, EES 9610, and GEOL 8610.