

MASTER'S PROJECT

This form is to be completed, signed, and submitted to the Graduate Advising Office (Engineering 2, Room 595) or the Drop Box located on the wall next to the E2-595 suite entrance. Class numbers are issued by the Graduate Advising Office via e-mail for enrollment. **You must enroll through MyUCSC** after receiving your class number.

Sampson Mao

1779735

Last Name

First Name

MI

Student ID

samao@ucsc.edu

Winter

Email

Quarter

Statistics

2021

Department

Year

PROPOSED PROJECT & DEADLINES

Modeling Counts with Correlated Random Fields

1. Title and description of proposed project:

We currently have methods for dependent Gaussian processes. However, when a random vector consists of correlated non-Gaussian random variables, many methods available for the Gaussian case do not work well. This project explores ways to model spatial data in which its marginal distribution is not a Gaussian distribution. Specifically, the project will make use of Gaussian copulas to obtain marginal count distributions.

R code, plots, and report

2. Description of work to be submitted:

This project will be done using climate data, such as Kansas tornado counts. Various distributions, covariance matrices, and parameters will be tested. Plots will then be generated and summarized in a final report.

3. A draft of the project report is due on: 02/26/2021

4. Final Project Report is due to committee members on: 03/12/2021. The signed project report must be submitted to the Graduate Advising Office as part of the degree completion requirements by the degree deadline listed on the Academic Calendar: <http://registrar.ucsc.edu/calendar/academiccalendar.html>

5. Number of units: 2 units (296) ☒ 5 units (299 - CSE ONLY) ☐

MS READING COMMITTEE

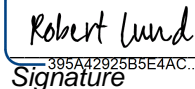
"I agree to serve on this student's Master's Project Committee"

MS Project CHAIR

Robert Lund

TIM

Faculty Name & Department



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Signature

MS Project Reader

Herbert Lee

STAT


Faculty Name & Department



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Signature

FOR GRADUATE ADVISING OFFICE USE ONLY

Class Number:	40913	Staff Initials:
Course Number:	STAT 296	
Section Number:	09	