



Undergraduate Modeling Workshop
May 20-25, 2018
PROJECT ABSTRACTS

Group Leader:
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Project IV: Southeastern US Rainfall

“Gulf coast rainfall data analysis”

Abstract: In this project the group members will play with daily rainfall data collected in Gulf coast (535 stations in total) from 1949 to 2017. The purposes of this exercise are to:

- 1) to give students an idea of a typical example of a climate data set (spatio-temporal data) and some associated scientific questions (e.g. how rainfall extremes vary in space and time and how that might be affected by other things like greenhouse gases or temperatures).
- 2) to get students familiar with data analysis using R including data manipulation, data visualization, and data summary.
- 3) to introduce some statistical methods (e.g. time series analysis, spatial statistics, extreme value analysis) to analyze this kind of data to "answer" (perform statistical inference) the questions of interest.

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