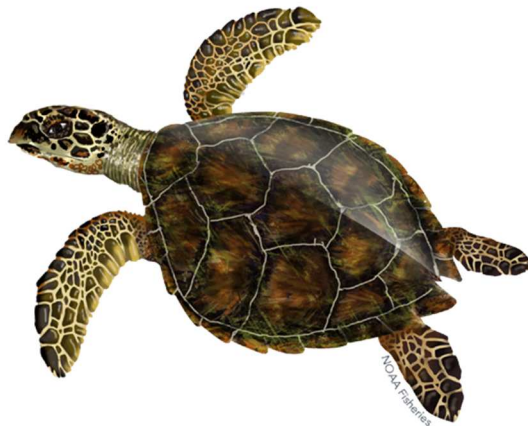


# Graduate Math and Physics Seminar

*Using Mathematics in Service of Conservation: Matrices and Sea Turtles*

Dr. Jason Miller

California State University, Channel Islands



**Abstract:** In this talk, I will describe a very nice use of mathematical modeling that was devised to help a population of loggerhead sea turtles: a species that is threatened with extinction. The model uses a Lefkovich stage class matrix model with data derived from life tables describing loggerhead turtle populations. Seven life stages are included in the model, from eggs or hatchlings, small juveniles, and up to mature breeders. The model helps answer the question of where conservationists should invest energy in protecting loggerheads by asking which life stage is most sensitive to disruption. Should they focus on eggs by protecting beaches used for nesting, or should they focus on some other stage of the loggerhead's life? Come to the talk to find out what the math says!

*When:* Monday, February 4th, 2019, 6:00 – 6:50 pm

*Where:* CSUCI, Sierra Hall 2411