## Mathematical Modeling of Calcium Homeostatis and Bone Remodeling

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## ABSTRACT

Dynamical system models of aspects of human physiology have become standard research tools. In this talk we will discuss the structure and uses of such models. We will talk about the complexity of human physiology and the implications of this complexity for the enterprise of mathematical modeling. We will focus on models of bone remodeling dynamics and calcium homeostasis; models that have been developed as tools for understanding, and developing treatments for, osteoporosis.