Plankton Population Dynamics: a biological and physical problem

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The Nutrient-Phytoplankton-Zooplankton (NPZ) model is a system of ODEs, used by both mathematicians and biologists to examine plankton population dynamics. Understanding of such dynamics is key to predicting the effects of climate change on aquatic ecosystems. Here, we give both biological and physical motivation, introduce a specific instance of the NPZ model, and discuss some theoretical and numerical results.