Synthesis of ocean observations for a more complete understanding of ocean circulation and marine ecosystems

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Global atmospheric variability, ocean circulation, and ocean ecological variability are complex and interacting. Earth system models (ESMs) are very powerful tools for reproducing and understanding these interrelationships. Observations are an essential part of understanding the functions and individual phenomena that the ESM must represent. Data assimilation is an efficient and sophisticated way to bring these two tools together and is one of the most important research topics in WPI-AIMEC's activities. In this presentation, as one of the teams participating in WPI-AIMEC, we will review our past observation activities and their synthesis studies, and discuss research directions for understanding marine ecosystems in combination with models.

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