

MCRN Newsletter

January 29, 2016 - Issue 10

BRIEF 10th-Issue Survey

Please take a minute to improve MCRN communication at [SurveyMonkey](#).

Next MCRN Colloquium Webinar

Monday, February 1, 2016, 10am EST: Laura Slivinski, National Oceanic and Atmospheric Administration (NOAA) [Webinar Link](#)

An Application of Lagrangian Data Assimilation to Katama Bay, MA

Abstract: Data assimilation is the process of combining predictions from numerical models with observations of the system. Fully Lagrangian data assimilation seeks to directly assimilate trajectories from drifters into some circulation model. This talk will provide a brief overview of Lagrangian data assimilation, followed by tests of assimilating trajectories from surface drifters into a model of a small bay to improve the estimate of a spatially-dependent model parameter. We focus on the Manning's n coefficient of friction, a parameter that generally must be tuned by hand, in the narrow, time-varying southern inlet of the bay. Synthetic experiments show that Lagrangian data assimilation can successfully estimate this parameter, regardless of the location of the drifters. Experiments with real data from 2013 show that assimilating drifter trajectories, released for a time period on the order of an hour, can improve upon the original tuned value of this parameter; however, this improvement seems to depend on the initial offset between modeled and observed velocities.

Joint work with: Larry Pratt, Irina Rypina, Mara Orescanin

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Jobs

See the current [Spring 2016 Schedule](#). The next speaker is **Vladimir Alexeev** (International Arctic Research Center, University of Alaska Fairbanks) on Monday, February 22, 2016, 4pm EST.

Research Focus Groups Meeting Times

Times below are in Eastern Time (ET).

Biogeochemistry & Carbon Cycle- Alternate Mondays at 5pm

Fast/Slow Systems- Wednesdays at 4pm

Minnesota Mathematics and Climate Seminar- Tuesdays at 12:15pm

Nonautonomous Bifurcations and Rate-induced Tipping (NBRIT)- Mondays at 9:30am

PaleoSeminar- Wednesdays at 12:30pm

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