

MCRN Newsletter

January 22, 2016 - Issue 9



Upcoming MCRN Colloquium Webinars

Monday, February 1, 2016, 10am EST: Laura Slivinski, National Oceanic and Atmospheric Administration (NOAA)

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

Mondays, February 8 and 15: No webinars for the Lunar New Year and U.S. Presidents' Day

Monday, February 22, 2016, 4pm EST: Vladimir Alexeev, International Arctic Research Center, University of Alaska Fairbanks

Monday, February 29, 2016, 10am EST: Marc Kjerland, Disaster Prevention Research Institute, Kyoto University

Monday, March 7, 2016, 4pm EST: Axel Timmermann, International Pacific Research Center, University of Hawaii

In case you missed it...

Last week's MCRN Colloquium Webinar:

Henk Dijkstra presented [Early warning indicators for transitions](#)

Upcoming Events

[Intensive Research Program: Advances in Nonsmooth Dynamics](#) February 1 - April 29, 2016 at the Centre de Recerca Matemàtica (CRM) in Barcelona.

[2016 Ocean Sciences Meeting](#) February 21-26, in New Orleans, Louisiana

Recent News

[Solicitation](#) Abstracts deadline for IUGG Conference on Mathematical Geophysics WAS EXTENDED TO JANUARY 31.

[Solicitation](#) Open problems in nonsmooth climate dynamics for the **Climate Modeling Workshop** at the CRM

[Solicitation](#) Seeking early career scientists for seed dispersal workshop (Deadline is January 25)

Jobs

See [Jobs](#) for open positions. **If you know of additional**

opportunities, please subscribe as an employer (only need to do the first time) to post jobs and

[in high-dimensional dynamical systems](#)

Research Focus Groups

Biogeochemistry & Carbon Cycle- Alternate Mondays at 5pm?
(began on January 11th)

Fast/slow systems- TBD, meetings start February 1

Minnesota Mathematics and Climate Seminar- Tuesdays at
12:15pm EST, beginning January 26

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

PaleoSeminar- TBD

Please send updated RFG information to [hubmins](#).

the first time) to [post jobs](#) and
access resumes of junior
researchers.

New members

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