Waves Summer School 2015

The Waves Group at NCEP/NOAA in partnership with the University System of Maryland Foundation will be offering a one-week Waves Workshop at the University of Maryland (UMD) College Park Campus, July 13 - 17, 2015. Topics covered will include wave dynamics and modeling, basics of the WAVEWATCH III® model, grid structures, numerics, oceanic, and nearshore applications. The workshop will consist of morning lectures and afternoon tutorials. See the Program schedule for details.

Registration for the Waves Summer School is $300, and will cover UMD administrative costs and IT support. There are 20 spots available and acceptance will be on a first-come, first-served basis. Parking is available in lots within walking distance at $15/day.

To register please go to

https://www.usmf.org/events/summer-wavewatch/

Additional information:

* There is no funding available from NCEP for covering participant costs.
* Deanna.Spindler@noaa.gov is the POC, please reply to her.
* Hard maximum of 20 participants due to computer lab facilities.

School Program

 Morning session
   8:00 - 9:00 --- Coffee, welcome, and course goals.
                     Introduction by Dr. Carton (Chair, AOSC, UMD)
                     and Dr. Tolman (Director, EMC/NCEP)
   9:00 - 10:00 --- Intro to Phase averaged wave modeling
  10:00 - 11:00 --- Pre compilation of WW3
  11:00 - 12:00 --- Modular structure of WW3
  12:00 - 13:00 --- Running the model single grid
  13:00 - 14:00 --- *Lunch Break*
 Afternoon session
  14:00 - 17:30 --- Afternoon Tutorials
                     Compiling and running the wave model for a single grid

 Tuesday July 14th
 Morning session
   8:30 - 9:00 --- Arriving at UMD
   9:00 - 10:00 --- Solving the action balance equation: source terms in WW3
  10:00 - 11:00 --- Time stepping, limiters, adaptive time stepping
  11:00 - 11:30 --- Garden sprinkler effects and alleviation
  11:30 - 12:30 --- Parallel implementation of WW3
  12:30 - 14:00 --- *Lunch Break*
 Afternoon session
  14:00 - 17:30 --- Afternoon tutorials
                     Running the model with different source term switches

 Wednesday July 15th
  Morning session
   8:30 - 9:00 --- Arriving at UMD
   9:00 - 10:00 --- Multi grid operations in WW3
  10:00 - 10:30 --- Grid reconciliation of similar grids
  10:30 - 11:30 --- Different grid types and grid integration
  11:30 - 12:30 --- Load balancing
  12:30 - 14:00 --- *Lunch Break*
 Afternoon session
  14:00 - 17:30 --- Afternoon tutorials
                     Grid generation tutorial using the gridgen package

<u>Thursday July 16th</u>

Morning session

  8:30 - 9:00 --- Arriving at UMD

  9:00 - 11:00 --- Unstructured grid formulation in WW3

11:00 - 12:00 --- Running WW3 with unstructured grids

12:00 - 13:30 --- *Lunch Break*

Afternoon session

13:30 - 17:30 --- Afternoon tutorial

                         Running the model with unstructured grids

<u>Friday July 17th</u>

Morning session

  8:30 - 9:00 --- Arriving at UMD

  9:00 - 10:00 --- Regression testing

10:00 - 11:00 --- Model validation (data analysis do's and don'ts)

11:00 - 12:00 --- Partition and tracking

12:00 - 13:30 --- *Lunch Break*

Afternoon session

13:30 - 17:30 --- Afternoon tutorial

                         Using regression testing package

     (last part of the afternoon will be reserved for answering questions about the course and clarifying doubts)