

**CICS-MD Science Meeting**

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College Park, MD

Huan Wu 7-2 The Global Flood Monitoring System (GFMS) Using Satellite  
Rainfall Information and a Hydrological Model

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The Global Flood Monitoring System (GFMS), has been developed, tested and improved to provide real-time flood detection, streamflow estimates and inundation mapping information at high resolution (as fine as 1 km) and forecasts (out to five days) using global NWP precipitation. Images and output data are available for use by the community with updates available every three hours (<http://flood.umd.edu>). The system uses satellite-based rainfall information, other satellite and conventional information and a hydrological and routing combination model, the Dominant river Routing Integrated with VIC Environment (DRIVE) system. The surface hydrological calculations are carried out at 0.125 ~~longitude~~ resolution with streamflow calculations done at that resolution and at 1km resolution. Details of the system will be presented along with examples of results for recent flood events along with validation statistics against a global flood event archive.