

## Fast Preview

*Note: This is not exactly what the published abstract will look like*

### Web-based Dissemination of TRMM Data via TerraFly

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Florida International University's High Performance Database Research Center (FIU HPDRC) is collaborating with the Goddard Earth Sciences Data and Information Service Center's Distributed Active Archive Center (GES DISC DAAC) to provide an easy-to-use and powerful Web-based interface to Tropical Rainfall Measuring Mission (TRMM) and other satellite data from NASA's Earth Science Enterprise (ESE). The collaboration uses FIU's TerraFly data dissemination tools to make TRMM and other data available to a wider audience of users. TerraFly is a Web-enabled system (<http://terrafly.fiu.edu>) designed to aid in the visualization of spatial and remote sensed imagery. This system allows one to "fly" over the Earth's surface and explore spatial data such as aerial photography, satellite imagery, street maps, and locale information. Internet capability allows the system to access numerous data sets without the installation of any specialized GIS programs. Designed for users of all levels and unlike other geographic information systems, TerraFly runs via standard Web browsers, with no need to download software or data prior to visualization. TerraFly can be delivered as a standalone application or a Web-based tool. FIU's technology of streaming incremental tiles to a Java applet allows the user to "fly" even via modem connections. While "flying" over imagery in TerraFly, the user can see various overlays, such as road names, application-relevant points that are hyperlinked to more information, and shaded zones that depict thematic map layers. The user can also view multi-spectral data by assigning bands to the RGB display and by visualizing the application of various algorithms and filters on multiple spectral bands or multiple data sets. The user can thus compare imagery of the same area acquired at different times or different imagery of the same area acquired concurrently and apply advanced visualization algorithms to the data. The FIU-GES DISC DAAC project aims to make TRMM and other NASA ESE data more easily accessible by enabling it to be visualized via the Web by a

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#### Student rate:

Not Applicable

#### Willing to chair a session:

Naphtali D Rische

#### Meeting Section:

SF - Special Focus

#### Special Session:

SF11 - Online Visualization and  
Analysis Tools and Their Use for  
Precipitation Research and  
Applications

#### Index Terms:

1854,1894

#### Theme:

#### Material presented:

0%

#### Contributed

#### Poster presentation requested:

broad spectrum of user communities, in an integrated, transparent manner, from within the TerraFly environment. The user will be able to select any point in the displayed TRMM imagery and retrieve, for an area the center of which is represented by the selected point, the previous day's average rainfall. Additional links will be available to provide more detailed TRMM visualizations, along with other data relevant to the selected point. This networked collaboration and integration of resources will enable the GES DISC DAAC to leverage the existing capabilities of TerraFly to better publicize and disseminate NASA ESE data to the broader TerraFly audience, including K-12 educators and students, operational users, and the general public. Conversely, the information available from TerraFly will be easily accessible to GES DISC DAAC users of TRMM and other ESE data, via the Web-accessible, TOVAS tool (<http://lake.nascom.nasa.gov/tovas/>).

**Scheduling request:**