

# **The HypsIRI Remote Sensing of Environment Special Issue**

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# Objectives of the Issue

- **To demonstrate the maturity, necessity, and urgency of HypsIRI-related science**
- **To include all fields that HypsIRI touches: terrestrial, aquatic, ecological, biogeochemical, physical. Papers that include some analysis of how well HypsIRI's particular characteristics (spatial, spectral, temporal) fit the science were encouraged.**
- **The deadline for submissions was May 31, 2014, early contributions were encouraged. The review process commences upon receipt of manuscripts to ensure timely completion of the special issue.**
- **Potential authors were asked to submit a title and abstract to the guest editors via email no later than March 15, 2014.**

# The Original Schedule

- **March 15, 2014: Abstracts submitted**
- **May 31, 2014: Full submissions\***
- **Aug 15, 2014: First reviews\***
- **Sept 30, 2014: First revisions\***
- **October 31, 2014: Second reviews\***
- **November 30, 2014: Second revisions**
- **December 31, 2014: Final reviews**
- **January 31, 2015: Final revisions**
- **February 28, 2015: Publication**
- **\*Most of these have slid, but final publication date is achievable.**

# Submissions

- **SURFACE ENERGY BALANCE/ATMOSPHERE (5 submissions)**
- **Tao He, Estimation of high-resolution land surface net shortwave radiation from AVIRIS data: Algorithm development and preliminary results**
- **Dongdong Wang, Estimating clear-sky all-wave net radiation from combined visible and shortwave infrared (VSWIR) and thermal infrared (TIR) remote sensing data**
- **David Thompson, Atmospheric Correction for Global Mapping Spectroscopy: Advances for the HypIRI Preparatory Campaign**
- **Shane Grigsby, Improved Surface Temperature Estimates with MASTER/AVIRIS Sensor Fusion**
- **Vince Realmuto, Specifying the Saturation Temperature for the HypIRI 4-um Channel**

# Submissions

- **MARINE ECOLOGY/WETLANDS (8 submissions)**
- **Tom Bell, Remote monitoring of giant kelp biomass and photosynthetic condition: An evaluation of the potential for the Hyperspectral Infrared Imager (HyspIRI) mission**
- **Chuanmin Hu, Spectral and spatial requirements of remote measurements of pelagic Sargassum macroalgae**
- **Raphael Kudela, Application of Hyperspectral Remote Sensing to Cyanobacterial Blooms in Inland Waters**
- **Young-Heon Jo, Potential Applications of HyspIRI for Observing Sea Margin Processes**
- **Kevin Turpie, Prospective HyspIRI Global Observations of Coastal Wetlands**
- **Laura Lorenzoni, High resolution hyperspectral phytoplankton characterization and variability in the Cariaco Basin**
- **Heidi Dierssen, Hyperspectral discrimination of floating mats of seagrass wrack and the macroalgae Sargassum in coastal waters of Greater Florida Bay using airborne remote sensing**
- **Erin Hestir, Measuring freshwater aquatic ecosystems: The role of a global mapping hyperspectral satellite mission**

# Submissions

- **TERRESTRIAL ECOLOGY (5 SUBMISSIONS)**
- **Jessica Miller, Combining airborne LiDAR and hyperspectral data across local sites for upscaling shrubland structural information: lessons for HypsIRI**
- **Keely L. Roth, Evaluating strategies for discriminating plant species within and across diverse ecosystems with imaging spectrometry**
- **Dar Roberts, Relationships Between Plant Species, Fractional Cover and Land Surface Temperature in a Mediterranean Ecosystem**
- **Ben Somers, Mesoscale assessment of tropical forest canopy diversity across a bioclimatic gradient in Panama using airborne imaging spectroscopy**
- **Kenneth Dudley, Mapping species across multiple dates of hyperspectral imagery using iterative endmember selection and multiple endmember spectral mixture analysis**

# What is Missing

- **The Overview**
  - To be written over the holidays (what else is Christmas for?)
- **GEOLOGY**
- **APPLIED REMOTE SENSING**
- **Terrestrial Ecology is out of balance with marine**
  - No Townsend/Asner/Middleton style biochemistry/physiology
  - Too much Roberts
- **Several submitted titles/abstracts missing**
- **A call to arms**
  - A late submission in a critical area would still be considered
  - November 30, 2014