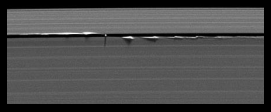
Accessing Cassini ***Rings*** Data Made Easier

M.W. Evans[1], R. Beebe[2], B. Streiffert[3], A. Connell[3], R. Tapella[3], and K. Weld[3]
(1) Cornell University, (2) New Mexico State University,
(3) Jet Propulsion Laboratory, California Institute of Technology
Contacts: mwe@astro.cornell.edu, rbeebe@nmsu.edu



Cassini Research Issues

- Future inaccessibility of Cassini science experts
- Cassini Data Highly Complex
- Cassini Data Not Easy to Find or Use
- Cassini Data in PDS not organized by Science Discipline
- Unanticipated Archive Responsibilities for Future Projects

Science Research Support (SRS) system houses unique support data that cannot be found anywhere else except within the PDS Help Pages:

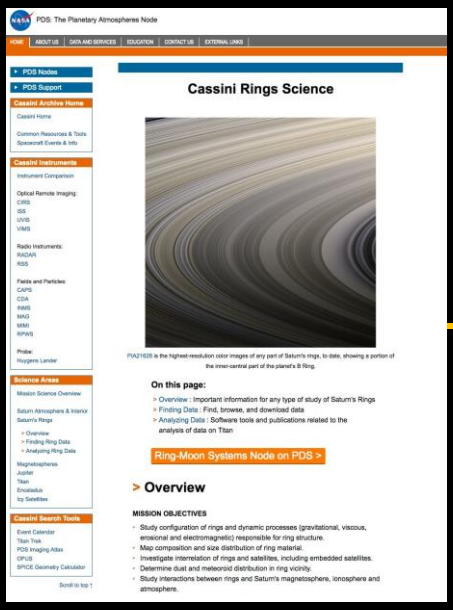
https://go.nasa.gov/2AU79O3
(*Revamped Rings PDS Help Page available in early 2019*)

Cassini / PDS Solutions

Science Teams and Discipline Experts:
Generate and deliver most valuable research support data

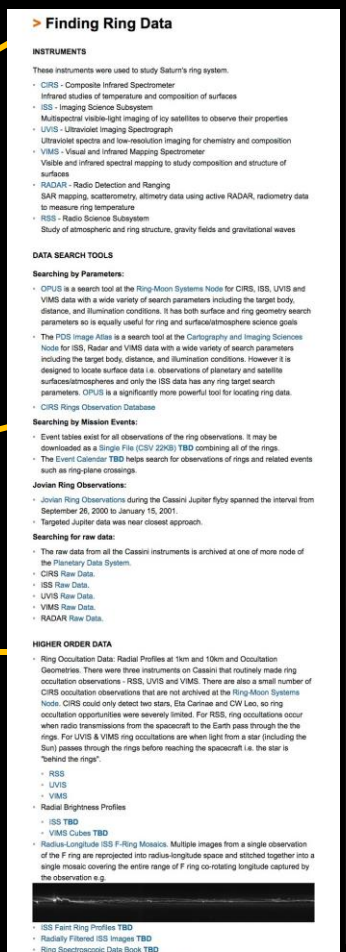
Project:
Generate and deliver search & visualization tools to aid in science research

Project:
Develop Architecture to organize data by disciplines & science teams. House tools & data in Help Pages at the PDS.



Ring Data

- Cassini Ring Data by Instrument
- Data Search Tools



Rings Overview

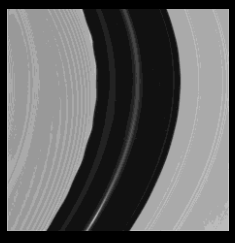
- Ring-Moon Systems Node
- Cassini Mission Objectives
- Ring Property Summary Table

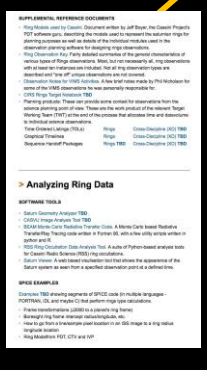
Events

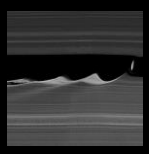
- Ring Event Calendar
- Mission Event Calendar
- Jovian Ring Observations

Higher-Order Products

- RSS, UVIS & VIMS Ring Occultations
- F Ring Radius-Longitude Mosaics
- Radial Brightness Profiles

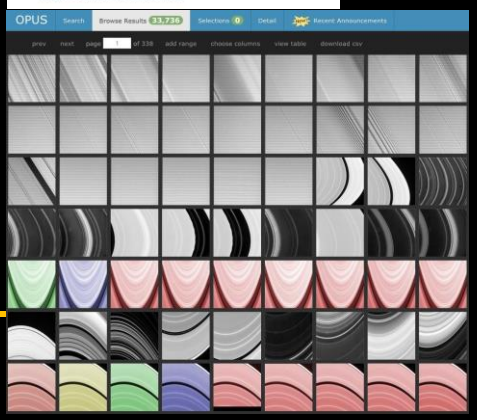






Reference materials

- Ring Models Used for Planning
- Ring Observation Guide
- VIMS Observation Notes
- CIRS Ring Target Notebook
- Graphical Representations of Observation Timelines
- Time Ordered Listings of Observations
- Planning Document Packages
- Rings Discipline Final Report
- Software Tools



Finding Data Tools

- Outer Planet Unified Search (OPUS)
- Event Calendar
- SPICE

Jet Propulsion Laboratory
California Institute of Technology

Acknowledgements: The research described in this paper was carried out at Cornell University and the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration. (c) 2018. All rights reserved.