

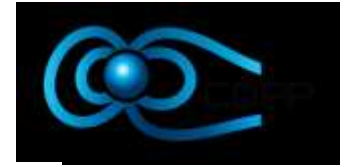
IHDEA

2024 MEETING

CDPP / CNES HIGHLIGHTS

Danièle Boucon

HISTORY AND CONTEXT (REMINDER)



CDPP* activities are "historically" split into two connected activities

- Long Term preservation, under CNES responsibility
- Scientific valorization, under CNRS/INSU responsibility

➤ 2 separated databases

- The CDPP archive in CNES
- The AMDA tool database in IRAP

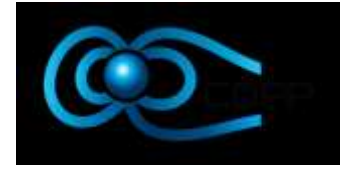
➤ 2 different data models "historically" created

- The "CDPP model" for the archive
- The "AMDA model"

➤ Limited consistency → Now both models are SPASE compliant. Still limited interfaces and possibilities for sophisticated interactions

* More information on CDPP server <https://www.cdpp.eu/>

GOALS

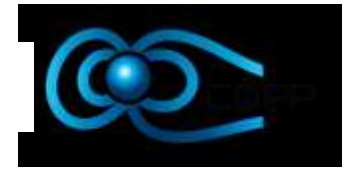


Need to

- Standardization and coherence of CDPP data models
 - Be compliant to community standards
 - Use the same model for all the CDPP tools

- Coordinated actions between CNES and IRAP to achieve:
 - Better usability
 - Better interaction/integration between CDPP tools
 - Offer new possibilitiesAs examples :
 - * Using archive data directly in CDPP scientific tools
 - * Offer a unified access to the two databases (common tree, common search criteria...

ARCHIVE MAIN ACTIVITIES SINCE LAST IHDEA MEETING 1/2



- REGARDS new archiving system (replacing SIPAD) opened beginning of 2024
 - the data catalog has been completely reviewed to propose SPASE compliant metadata
 - Data model conforms to SPASE 2.4.0 (should be compliant with 2.6.2)
 - the HMI has been redesigned
 - better data search and command performance
 - Same link to access the CDPP archive : <https://cdpp-archive.cnes.fr>
You'll have to recreate an account.
If you have some problems, support address: l-cdpp_support@cnes.fr

- This closes a huge migration phase (data, documents, new data model, new ingestion chains...) -> about 4 years



CNES Data Archive for CDPP

General presentation

Missions and products

About

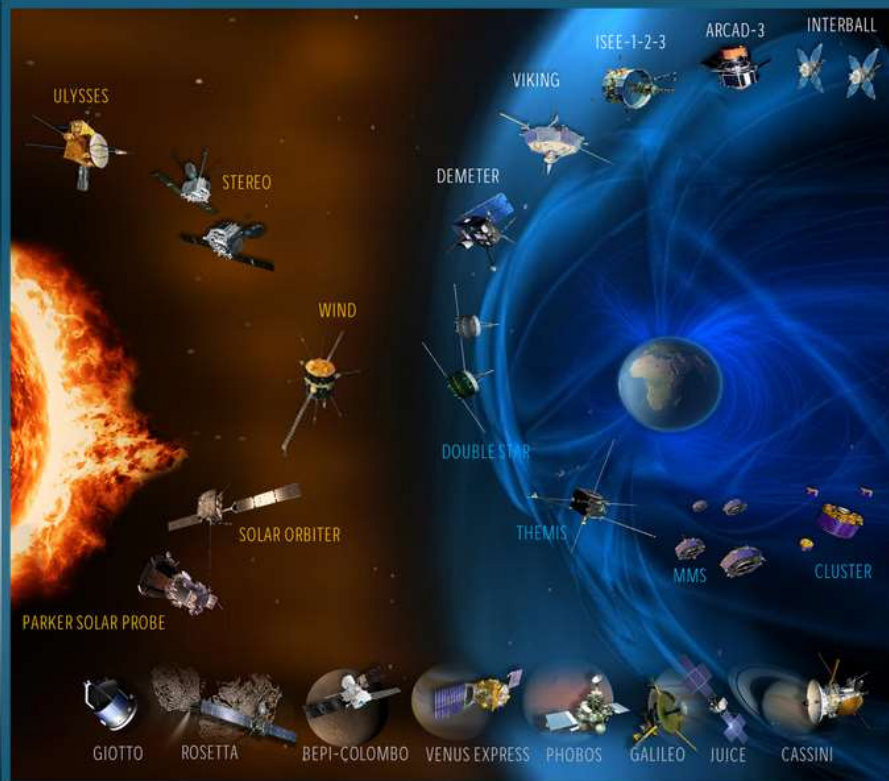
The CDPP is the french plasma physics data center. Created in 1998 by CNES and CNRS.

It assures the long term preservation of data obtained primarily from instruments built using French resources, and renders them readily accessible and exploitable by the international community.

The CNRS is responsible for the scientific component which is hosted at IRAP with the collaboration of Observatoire de Paris.

This site represents the archive of data hosted at CNES, which is responsible for their long-term preservation.

For more information please contact [Support](#).



Data access

Data available here are public but to order data you need to be registered (see [user guide](#)).

Please acknowledge the CDPP and the PI of the data if you use it in a publication, ...for more details read the [template](#).

Other links & News

CDPP CNES archive data is opened since 2023.

Useful links : the main site of CDPP.

The latter provides users with a number of tools such as : AMDA, 3DView, Propagation tool, spaceweather tool and Treps.



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REGARDS



Home All products 10/15/2024, 2:04:55 PM UTC Login

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ARCAD-3
CASSINI
CLUSTER
DEMETER
DOUBLE STAR
EISCAT Radars
GALILEO
Geomagnetic indices
GEOS (Europe)
GIOTTO
INTERBALL
ISEE-1/ISEE-2
ISEE-3/ICE
JUICE
MMS
PARKER SOLAR PROBE
PHOBOS
ROSETTA
SOLAR ORBITER
STEREO
THEMIS
ULYSSES
VENUS EXPRESS
VIKING

ARCAD-3
CASSINI
CLUSTER
DEMETER
DOUBLE STAR
EISCAT Radars
GALILEO
Geomagnetic indices
GEOS (Europe)
GIOTTO
INTERBALL Auroral and Tail
ISEE1
ISEE3/ICE
MMS
PARKER SOLAR PROBE
PHOBOS

Data CASSINI
Documents CASSINI
Quicklooks CASSINI

Missions and products

Missions & products

With this archive, are produced by French funding experiments. Then an overview of each mission is given experiments used to produce these data. Note that descriptive documents of the mission and associated experiments via the search tool.

For more information about the mission or associated data, users can follow links to other websites we give here.

Archive's products

We provide access to a scientific data. We also provide an ancillary data (the orthography and attitude data, the ground data, and the science data, ground data).

Various thematic: Earth magnetosphere studies, ionospheres studies, solar wind missions, planetology

We provide access to different resources associates to the data as the descriptions and the scientific or technical documents. The archive also offers access to some software libraries.

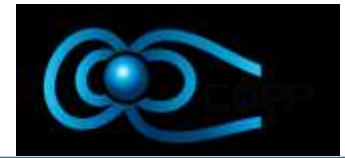
To explore this data catalog, view quicklooks or use search criteria. But to order data or download documents, the user must see the [User guide](#).

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Home All products Products by mission Get Started | 10/15/2024, 6:29:47 AM UTC Login

Data Results Description

CAS_RPWS_HFR_QTN_N3_CDF SEARCH RELATED DATA

Parameters

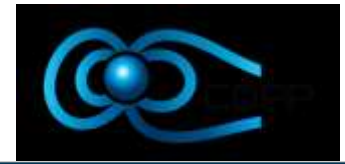
Information

- CASSINI Spase Descripti... ↓
- Dataset Description** ↓
- Dataset Spase Descripti... ↓
- Experiment Description ↓
- Mission Description ↓
- RPWS-HFR Instrument ... ↓
- RPWS-HFR Instrument S... ↓

<u>Dataset Name</u>	CAS_RPWS_HFR_QTN_N3_CDF
<u>Dataset Label</u>	CASSINI RPWS L3 Electron Density and Temperature from Quasi-Thermal Noise Analysis on RPWS/HFR Spectra
<u>Description</u>	This dataset contains electron density and temperature from quasi-thermal noise analysis on RPWS/HFR spectra.
<u>Dataset Start Date</u>	06/30/2004 16:42:09
<u>Dataset End Date</u>	04/15/2012 05:52:46
<u>Mission</u>	CASSINI
<u>Experiment</u>	RPWS
<u>Instrument</u>	RPWS-HFR
<u>Format</u>	CDF
<u>Processing Level</u>	Calibrated
<u>Scientific Review</u>	True
<u>Acknowledgement</u>	Data provided are publicly available. If used in presentations or publications, please acknowledge Cassini/RPWS investigation (W. S. Kurth (PI) Univ. of Iowa). We recommend the data users to contact the Cassini/RPWS team early in their study. For reporting purposes, we request bibliography information for any publication, etc., using these data. Please send information on the use of these data to: PI : William S. Kurth (william-kurth@uiowa.edu) co-I : Baptiste Cecconi (baptiste.cecconi@obspm.fr) We suggest to add the following lines into the acknowledgments: The authors acknowledge NASA, University of Iowa, CNES (Centre National d'Etudes Spatiales), CNRS (Centre National de la Recherche Scientifique), and Observatoire de Paris for their support to the Cassini/RPWS team and the CDPP (Centre de Données de la Physique des Plasmas) for the distribution of the Cassini/RPWS data. The following paper should also be used to reference: Gurnett, D.A., et al. 2004. The Cassini Radio and Plasma Wave Science Investigation. Space Sci. Rev. 114 (1–4): 395?463. doi:10.1007/s11214-004-1434-0.

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Accueil **Tous les produits** Produits par mission Premiers pas | 15/10/2024 06:48:16 UTC Connexion

Données Résultats Description

CAS_RPWS_HFR_QTN_N3_CDF RECHERCHER LES DONNÉES LIÉES

Paramètres

Information

- CASSINI Spase Descripti... ↓
- Dataset Description ↓
- Dataset Spase Descripti...** ↓
- Experiment Description ↓
- Mission Description ↓
- RPWS-HFR Instrument ... ↓
- RPWS-HFR Instrument S... ↓

NumericalData Version:2.4.0

ResourceID
spase://CNES/NumericalData/CDPP-Archive/CASSINI/RPWS-HFR/CAS_RPWS_HFR_QTN_N3_CDF

ResourceHeader

ResourceName
CASSINI RPWS L3 Electron Density and Temperature from Quasi-Thermal Noise Analysis on RPWS/HFR Spectra

DOI
<https://doi.org/10.24400/802406/vqt7-1k9p>

ReleaseDate
2022-06-02 17:57:30Z

Description
This dataset contains electron density and temperature from quasi-thermal noise analysis on RPWS/HFR spectra.

Acknowledgement
Data provided are publicly available. If used in presentations or publications, please acknowledge Cassini/RPWS investigation (W. S. Kurth (PI) Univ. of Iowa). We recommend the data users to contact the Cassini/RPWS team early in their study. For reporting purposes, we request bibliography information for any publication, etc., using these data. Please send information on the use of these data to:

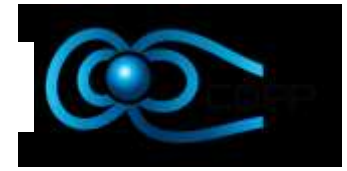
PI : William S. Kurth (william-kurth@uiowa.edu)
co-I : Baptiste Cecconi (baptiste.cecconi@obspm.fr)

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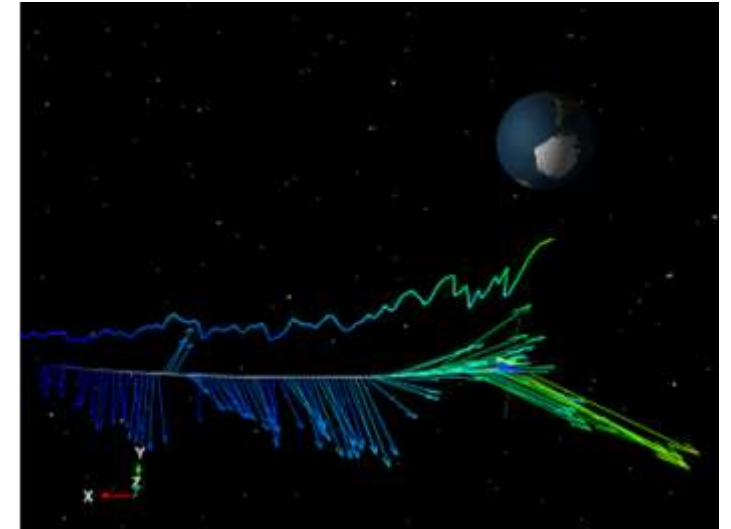
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ARCHIVE MAIN ACTIVITIES SINCE LAST IHDEA MEETING 2/2



➤ 1st preliminary study to use the archive data with 3D View through Regards

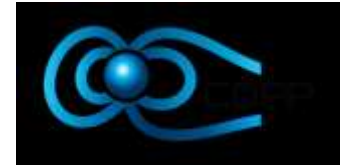
- HPDE SPASE repository <https://hpde.io/CNES/>
- All SPASE metadata on HPDE repository
 - Direct access to the data through the landing page



Ex CASSINI / RPWS HFR

https://hpde.io/CNES/NumericalData/CDPP-Archive/CASSINI/RPWS-HFR/CAS_RPWS_HFR_QTN_N3_CDF.html

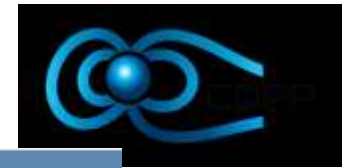
<https://hpde.io/CNES/index.html>



HPDE.io

/CNES/NumericalData/CDPP-Archive

CDPP-Archive	
ARCAD-3	▶
CASSINI	▶
Cluster	▶
Cluster-1	▶
Cluster-2	▶
Cluster-3	▶
Cluster-4	▶
DEMETER	▶
DoubleStar1	▶
DoubleStar2	▶



Direct data access

HPDE.io

Data Access

REGARDS

CASSINI RPWS L3 Electron Density and Temperature from Quasi-Thermal Noise Analysis on RPWS/HFR Spectra

Details

[View XML](#) | [View JSON](#) | [Edit](#)

Version: 2.4.0

NumericalData

ResourceID

spase://CNES/NumericalData/CDPP-Archive/CASSINI/RPWS-HFR/CAS_RPWS_HFR_QTN_N3_CDF

ResourceHeader

ResourceName

CASSINI RPWS L3 Electron Density and Temperature from Quasi-Thermal Noise Analysis on RPWS/HFR Spectra

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Contacts

	Role	Person	StartDate	StopDate	Note
1.	PrincipalInvestigator	spase://CNES/Person/CDPP-Archive/William.S.Kurth			
2.	DeputyPI	spase://CNES/Person/CDPP-Archive/Donald.A.Gurnett			
3.	CoInvestigator	spase://CNES/Person/CDPP-Archive/Baptiste.Cecconi			
4.	CoInvestigator	spase://CNES/Person/CDPP-Archive/Philippe.M.Zarka			
5.	CoInvestigator	spase://CNES/Person/CDPP-Archive/Laurent.Lamy			

AccessInformation

RepositoryID

<spase://CNES/Repository/CDPP-Archive/REGARDS-CDP>

Availability

Online

AccessURL

Name

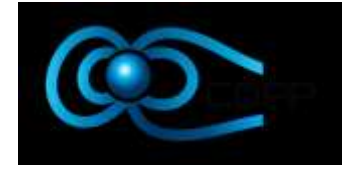
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URL

https://regards.cnes.fr/user/cdpp/modules/1777?sp=DatasetName;q=DatasetName:CAS_RPWS_HFR_QTN_N3_CDF

Description

ARCHIVE ROADMAP



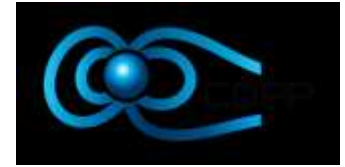
➤ 1st phase (from now)

- Moving to a new long term storage system: data migration, old data analysis -> end of 2025
- Integration of new missions (short term MAVEN and Solar Orbiter, mid and long term JUICE and BEPI COLOMBO)

➤ 2nd phase (from 2025)

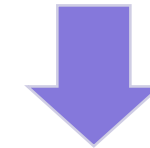
- REGARDS will continue to evolve (scientific community feedback...)
- Integration with CDPP valorization tools will be reinforced
- Visualization and command of the AMDA data through the Archive/REGARDS data tree
Common search with common criteria (ex. search all Cassini data in both databases)
- Archive data in the new storage infrastructure will be accessible by the CDPP tools (webservices, OV protocols)

ARCHIVE ROADMAP



2024 and 2025: old data analysis, data migration

Integration of **new missions**

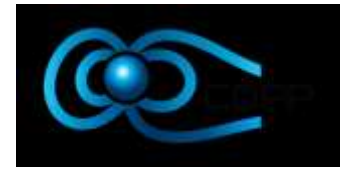


end 2025:
new long
term storage
system



From 2025:

REGARDS + CDPP valorization tools **reinforced**



<https://cdpp-archive.cnes.fr>

THANK YOU FOR YOUR ATTENTION