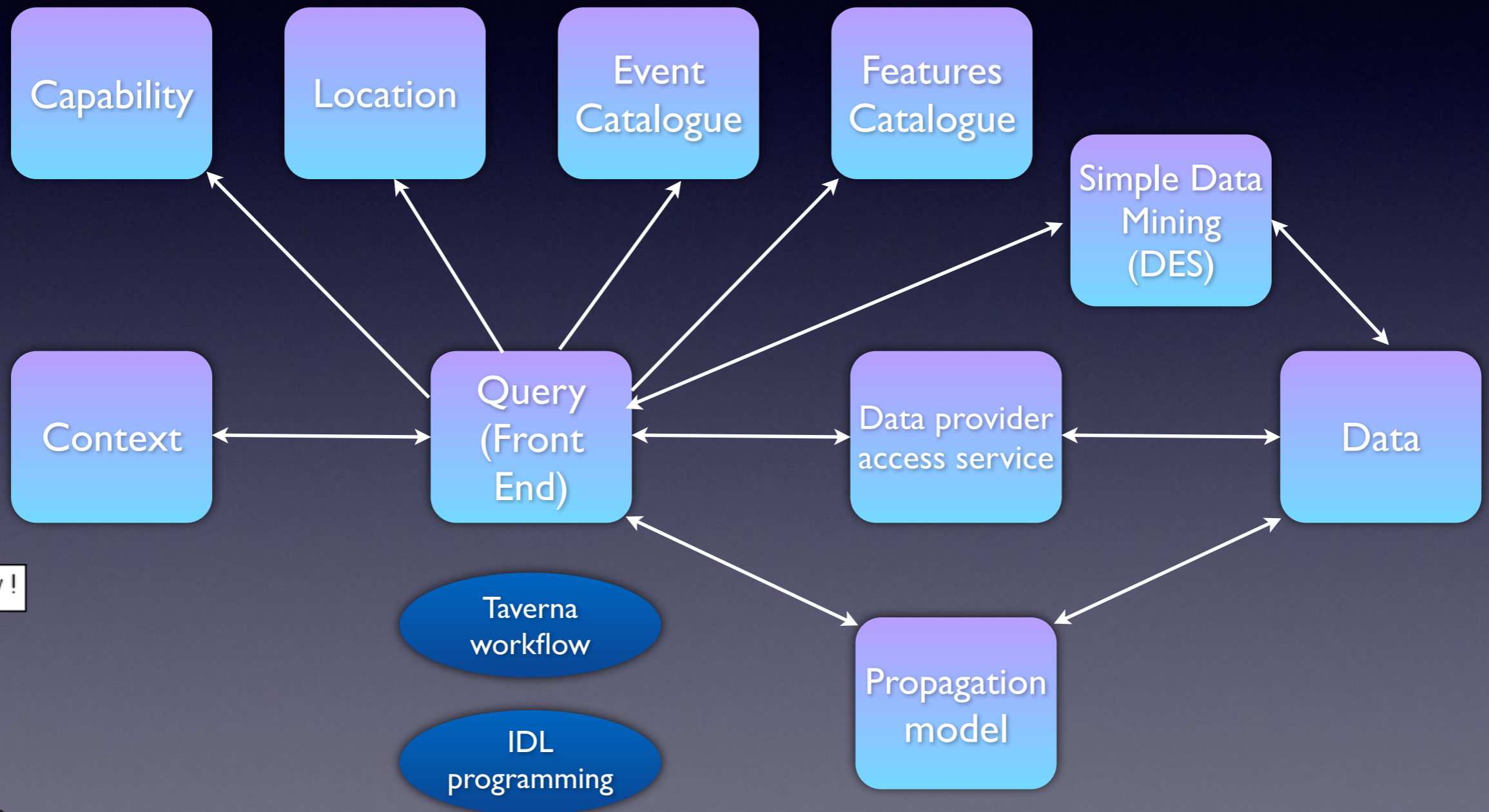


HELIO, Un outil pour la météo spatiale

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LESIA - OV Paris Data Centre
Observatoire de Paris

<http://www.helio-vo.eu/>

Un ensemble de services



Rah lovely !



¿ Que permet HELIO ?

- Accès centralisé aux données de ≈ 200 instruments (soleil - plasmas du système solaire)
- Accès centralisé à ≈ 60 catalogues d'événements héliosphériques
- Requêtes non traditionnelles (recherche par capacités d'instruments, ...)
- Mise en relation dans le système solaire par modèles de propagation
- Catalogue de structures héliosphériques
- Contexte
- ...

Mode d'utilisation

The screenshot displays the HELIO website interface. At the top, the HELIO logo is on the left, and the text "HELIOPHYSICS INTEGRATED OBSERVATORY" is centered. A navigation bar contains links for Home, Search, Plot Data, Tools, Links, and Help. A "Data Cart" sidebar is visible on the left. The "Search" menu is expanded, showing options for Events, Features, Observation Data, Instruments by Capability, and Instruments/Planets by location/time. Below the navigation, three search buttons are presented: "Search Events" (with a sun and exclamation mark icon), "Search Features" (with a sun and spiral icon), and "Search Observation Data" (with a binary code icon). Each button includes a brief description of the search scope.

HELIO HELIOPHYSICS INTEGRATED OBSERVATORY

Home Search Plot Data Tools Links Help

Data Cart

- Events
- Features
- Observation Data
- Instruments by Capability
- Instruments/Planets by location/time


Search Events
Search for solar events in more than 50 events lists from all parts of the heliosphere.

Search Features
Search for heliophysics features detected by HELIO feature recognition algorithms. Supported features include filaments, coronal holes, sun spots, active regions and type III radio bursts.

Search Observation Data
Search for observations made by more than 150 instruments from more than 40 observatories.

HELIO HELIOPHYSICS INTEGRATED DATA ANALYSIS


Home Search Plot Data Tools Links Help

Data Cart
 4 avril 2001

ACE timeline plot

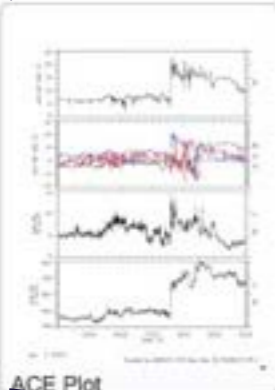
Parameters

Select Dates

 Name 4 avril 2001
 # 1 2001-04-04T00:00:00 - 2001-04-05T00:00:00

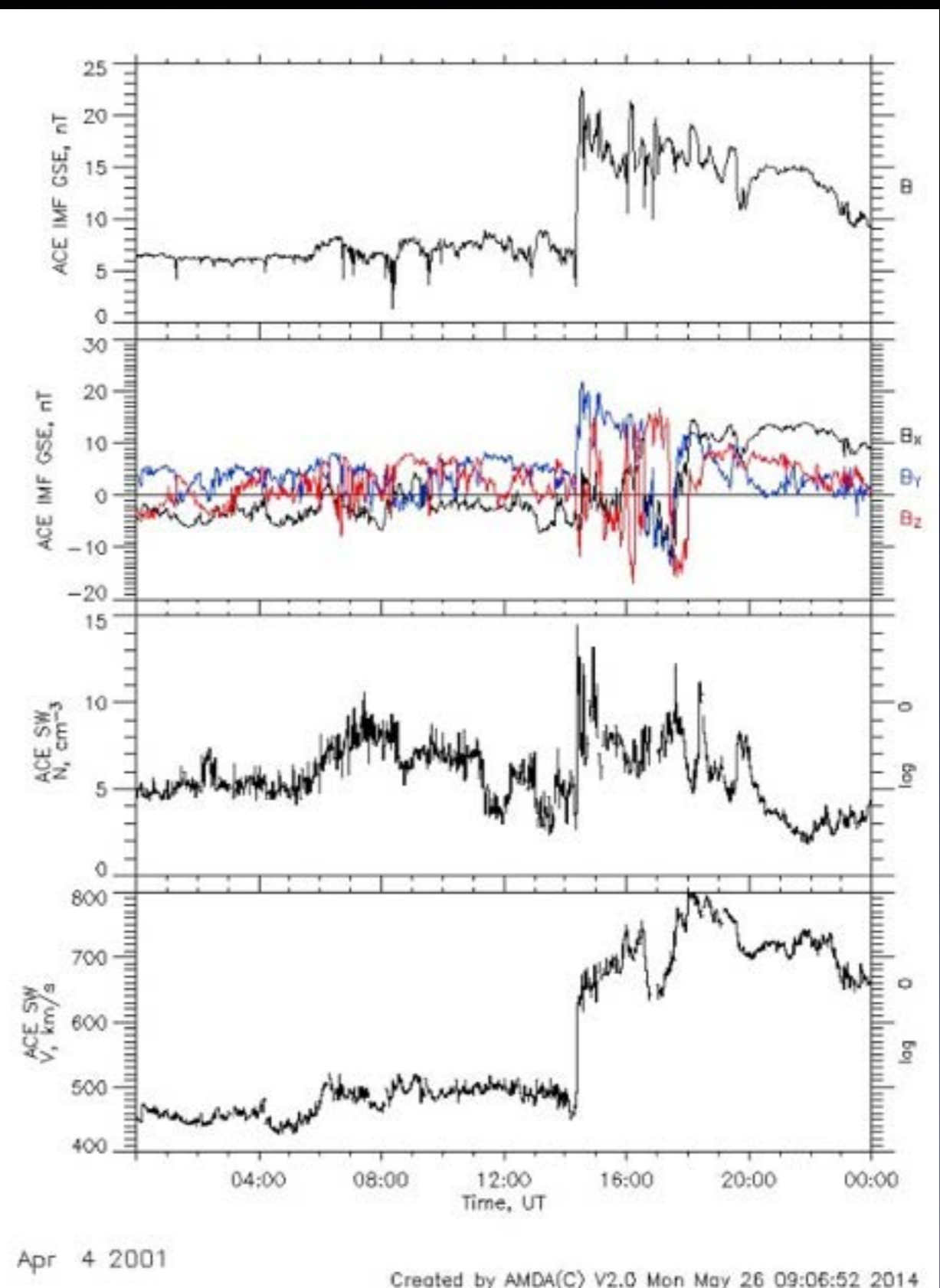
Data successfully loaded!

Plot for task 'ACE timeline plot'



ACE Plot

Log for task 'ACE timeline plot'



Plot Data Tools Links Help

Upload VOTable

Propagation Model

Coronal Mass Ejections (CME) Forward PM

Coronal Mass Eje

Co-rotating Intera

Co-rotating Intera

Solar Energetic F

Solar Energetic F

me 4 avril 2001

2001-04-04T

Event Lists

Combine lists

Connect to exterr

ta successfully loaded!

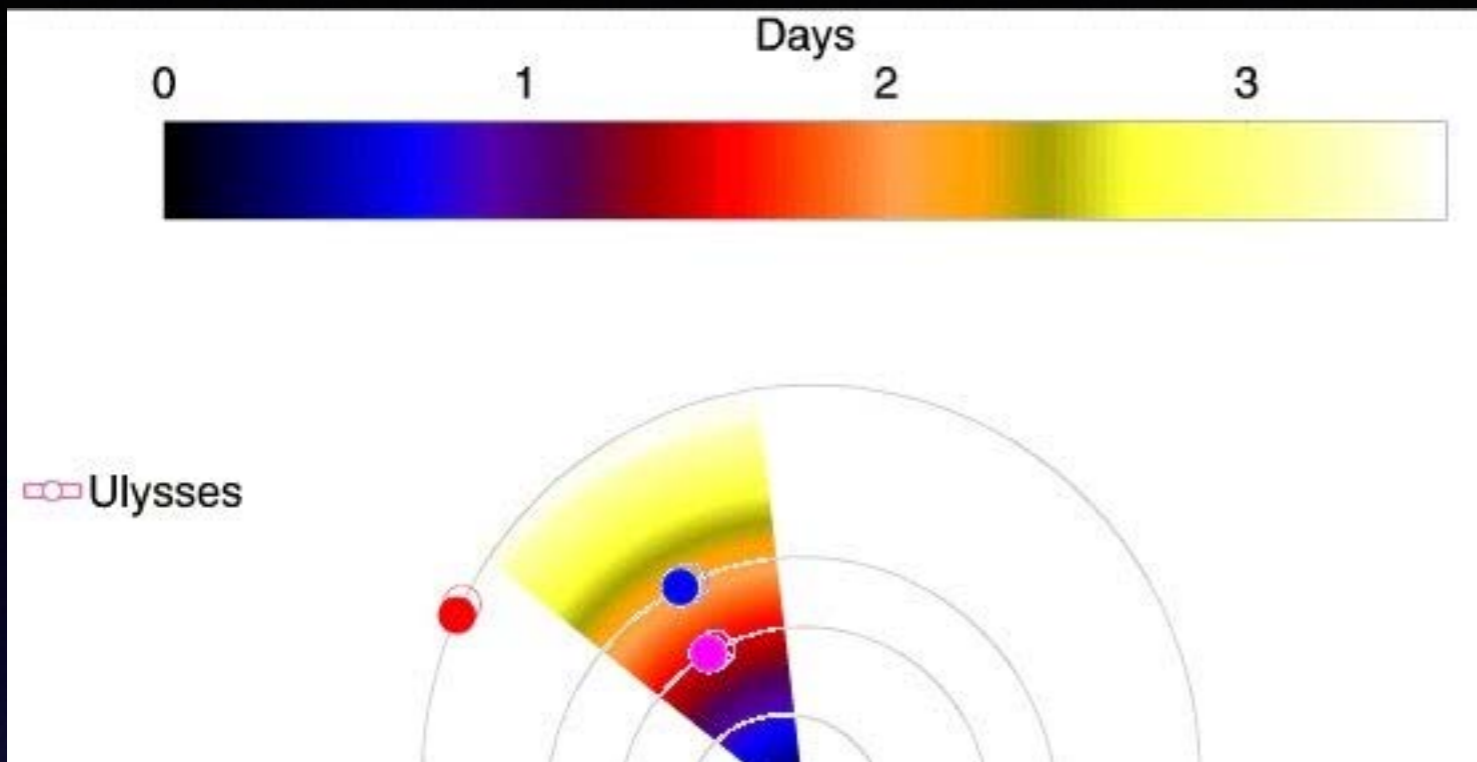
Select Parameter

Parameter	Value	Description
Object	Earth	Planet or Satellite hit by the CME
Speed	800	CME speed in km/s
SpeedError ±	0	Error in the speed in km/s
Width	45.0	Longitudinal width of the CME in degrees

Name:

Provide a name to add this parameter set to your *Data Cart*.

Help Cancel Ok



SHEBA CME propagation model (14)

Show as table Show as plot

Hide missed objects



Show 50 entries Search:

time_start	long_hg	long_hci	long_width	v	v_err	target_obj	r_hci	HitOrMiss	ETA	ETA_min	ETA_max	Dt	Dt_min	Dt_max
2001-03-30T19:56:27.422	2.14	116.53	60	800	100	MERCURY	0.443	0	-	-	-			
2001-03-30T19:56:27.422	2.14	116.53	60	800	100	VENUS	0.721	1	2001-04-01T09:29:20.014	2001-04-01T05:19:00.837	2001-04-01T14:51:10.385	1.56	1.39	1.79
2001-03-30T19:56:27.422	2.14	116.53	60	800	100	EARTH	0.999	1	2001-04-02T00:00:04.051	2001-04-01T18:12:59.981	2001-04-02T07:26:17.855	2.17	1.93	2.48
2001-03-30T19:56:27.422	2.14	116.53	60	800	100	MARS	1.567	0	-	-	-			
2001-03-30T19:56:27.422	2.14	116.53	60	800	100	JUPITER	5.077	0	-	-	-			
2001-03-30T19:56:27.422	2.14	116.53	60	800	100	SATURN	9.084	0	-	-	-			
2001-03-30T19:56:27.422	2.14	116.53	60	800	100	URANUS	13.067	0	-	-	-			

Select Event List



Select criteria to restrict the list of events

Show all

Event type:

CME

Flare

Solar Wind

Particle

Location:

Solar

IPS

Geo

Planet

Obs. type:

In situ

Remote

Both

All flare lists are shown.

Search

Description	From	To	Type	Status	Info
GOES Soft X-ray Flare List	1975-09-01	2014-05-15	event	active	

GOES Soft X-ray Flare List



Show 50 entries

Search:

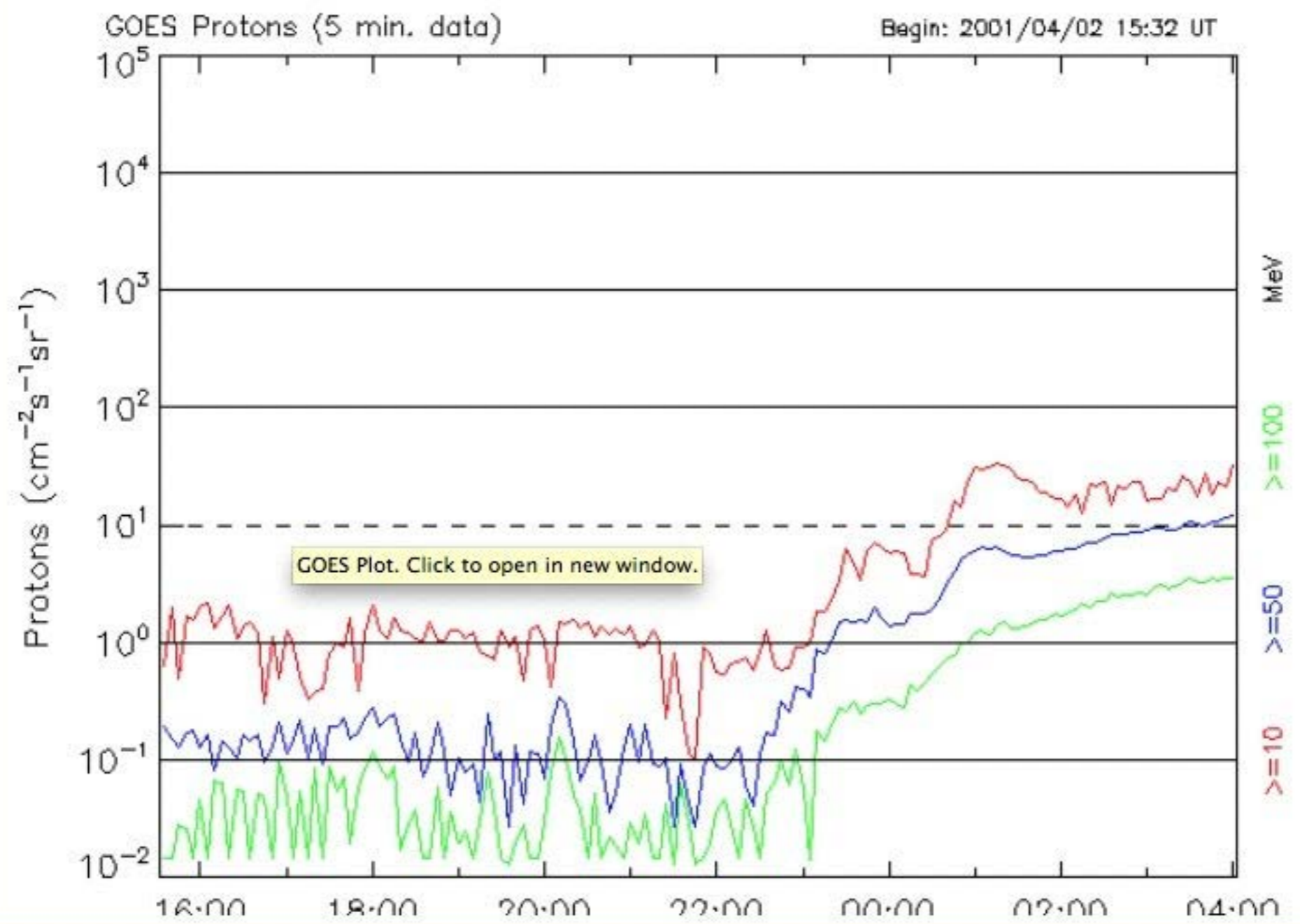
	time_start	time_peak	time_end	nar	lat_hg	long_hg	long_carr	xray_class	optical_class
	2001-04-01T23:48:00	2001-04-02T00:03:00	2001-04-02T00:07:00					M1.0	-
	2001-04-02T00:14:00	2001-04-02T00:28:00	2001-04-02T00:40:00	9393	17	57	155.44	M3.2	sf
	2001-04-02T04:03:00	2001-04-02T04:08:00	2001-04-02T04:11:00	9393	11	63	159.35	C5.5	sf
	2001-04-02T05:25:00	2001-04-02T05:28:00	2001-04-02T05:32:00	9393	13	63	158.6	M1.0	sf
	2001-04-02T09:19:00	2001-04-02T09:31:00	2001-04-02T09:37:00	9393	17	62	155.45	C8.5	1f
	2001-04-02T09:45:00	2001-04-02T09:52:00	2001-04-02T09:59:00	9393	15	64	157.21	M1.9	sf
	2001-04-02T10:04:00	2001-04-02T10:14:00	2001-04-02T10:20:00	9393	17	60	153.04	X1.4	1b
	2001-04-02T10:58:00	2001-04-02T11:36:00	2001-04-02T12:05:00					X1.1	-
	2001-04-02T18:08:00	2001-04-02T18:50:00	2001-04-02T19:20:00	9393	19	72	160.6	M2.1	1f
	2001-04-02T21:32:00	2001-04-02T21:51:00	2001-04-02T22:03:00	9393				X20.0	-
	2001-04-03T03:25:00	2001-04-03T03:57:00	2001-04-03T04:55:00	9415	-21	-83	0.5	X1.2	1n
	2001-04-03T12:29:00	2001-04-03T12:34:00	2001-04-03T12:38:00	9393	15	88	166.52	M2.4	2f

Time Range inspector

Date range:

- GOES Proton Plot
- GOES SXR Plot
- Flare Plot
- Simple parker spiral
- External links

Click to load or reload the [GOES Proton Plot](#)



Help Cancel Ok

Même opération à partir du soleil donne les instants des impacts des phénomènes solaires sur les diverses planètes touchées - dont la Terre.

Perspectives

- Outils de prévisualisation des données
- Créer un catalogue d'index géomagnétiques
- Rechercher des listes d'événements complémentaires (GPS « dropout », changements de trajectoire de petits corps, ...)
- Enrichir la bibliothèque de « workflows » (chercher les contreparties à la Terre de 1000 CMEs, ...)

Conclusion

- HELIO permet de chercher des relations possibles entre données dans le système solaire
- HELIO propose un accès simple à la plupart des jeux de données héliosphériques
- HELIO permet d'établir les connexions entre événements en divers points du système solaire

<http://www.helio-vo.eu>