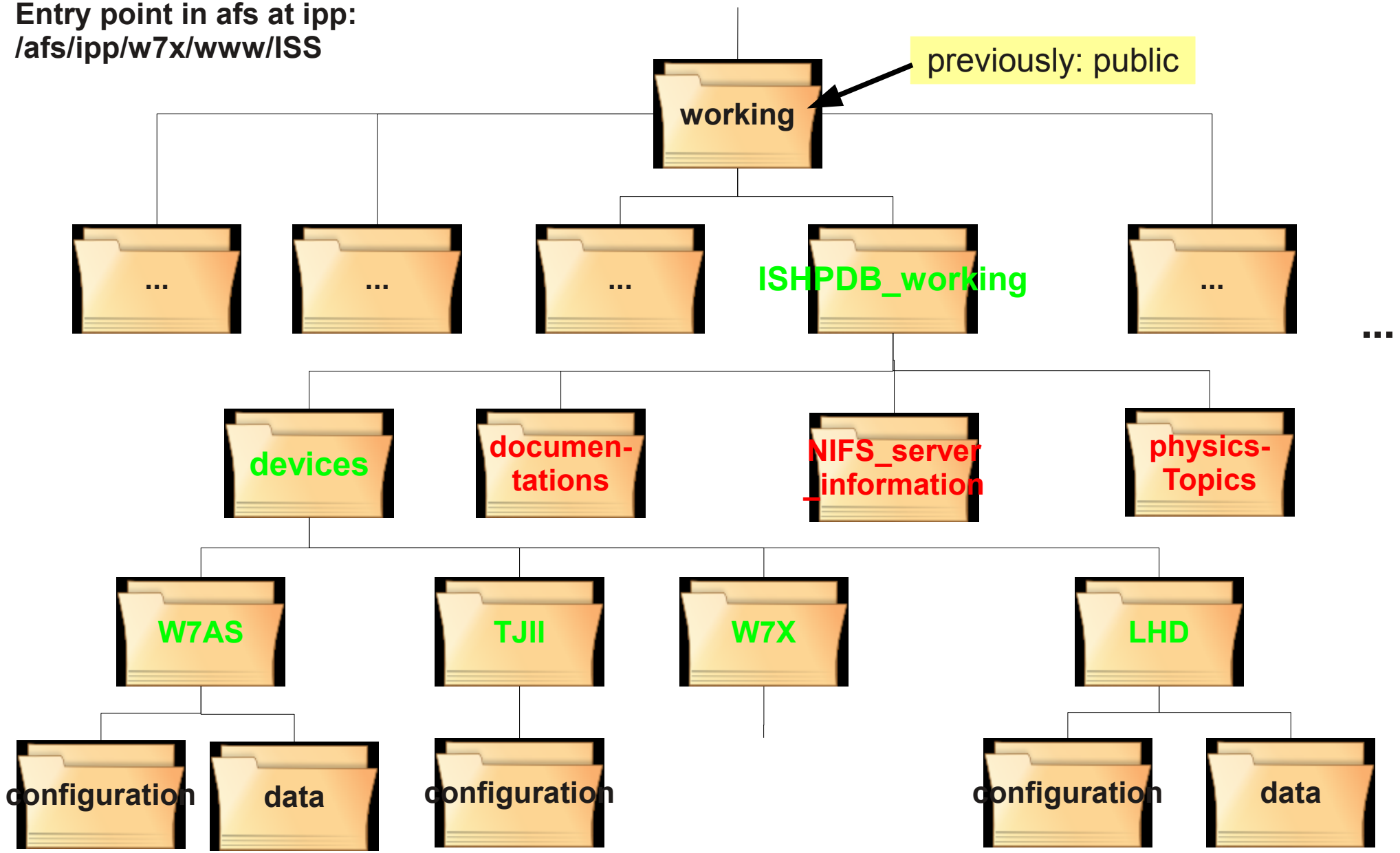
Status Equilibrium Database

J.Geiger

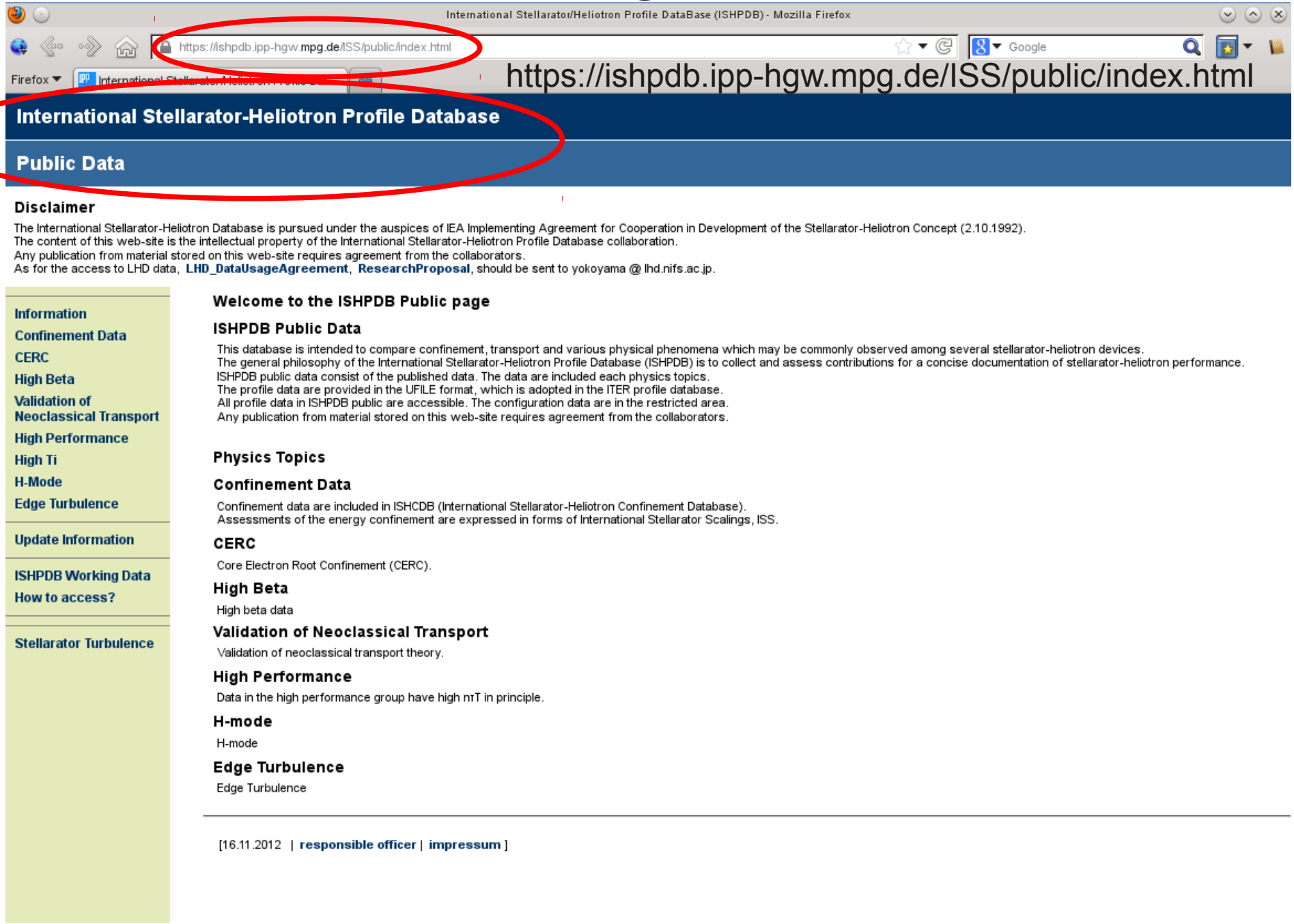
CWGM, 11.Mar.-13.Mar. 2013, Madrid

Current structure within ISS-directory

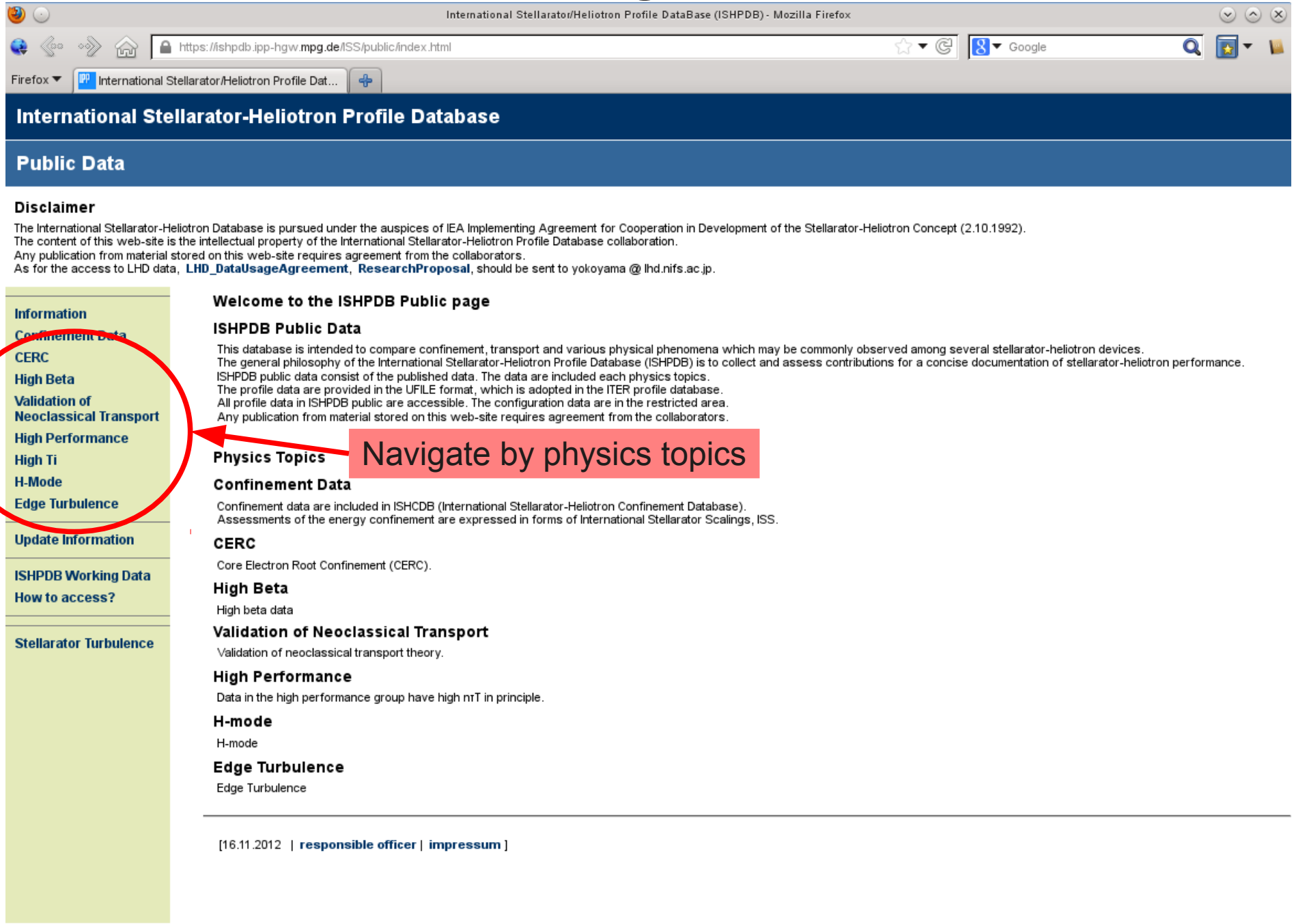
Entry point in afs at ipp:
/afs/ipp/w7x/www/ISS



Access to configurations



Access to configurations



International Stellarator-Heliotron Profile Database

Public Data

Disclaimer

CERC aka Core Electron Root Confinement

References:
M. Yokoyama et al., Nucl. Fusion., **47**, 1213 (2007).
M. Yokoyama et al., Fusion Sci. Tech., **50**, 327 (2006).
J. Lore et al., Physics of Plasmas **17** 056101 (2010).

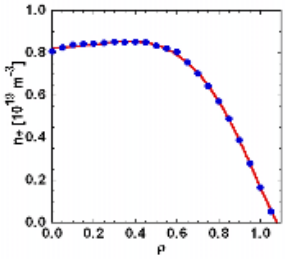
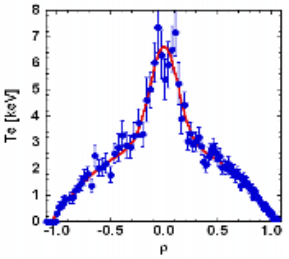
Devices:
LHD
W7-AS
TJ-II
HSX

Deliverables:
- Measured ne, Te, Ti (if possible) and Er (if possible) profiles as a function of rho
- Overview of time traces
- Corresponding equilibrium data (need the discussion)

Fitting functions

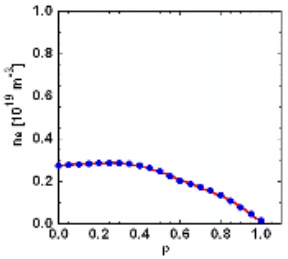
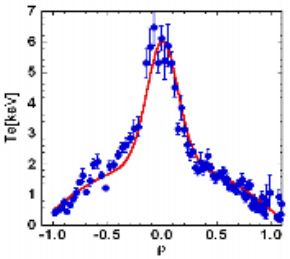
LHD CERC data

027552
UFILE
xml
Confinement Data

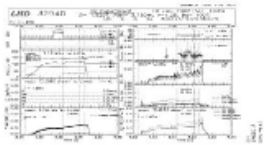
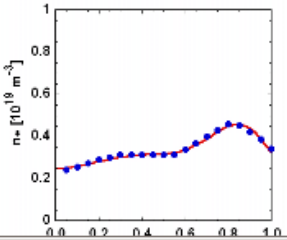
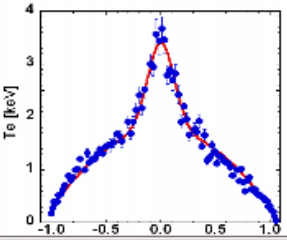
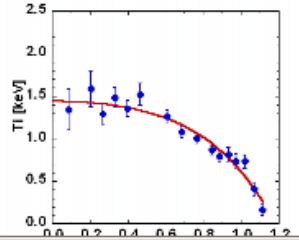
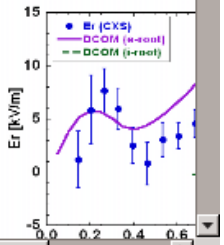
Ti (0) = 2 keV [Crystal]

028143
UFILE
xml
Confinement Data

Ti (0) = 1.1 keV [Crystal]

032940
Fit Coefficients
UFILE
lhd_032940_002003_v0001_0d.dat
lhd_032940_002003_v0002_0d.dat
lhd_032940_002003_v0001_2d.dat
lhd_032940_002003_v0002_2d.dat
lhd_032940_002503_v0002_0d.dat
lhd_032940_002503_v0002_2d.dat
lhd_032940_002503_v0003_2d.dat
Configuration Data
xml

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Any publication from material stored on this web-site requires agreement from the collaborators.
As for the access to LHD data, **LHD_DataUsageAgreement**, **ResearchProposal**, should be sent to yokoyama @ lhd.nifs.ac.jp.

- Information
- Confinement Data
- CERC
- High Beta
- Validation of Neoclassical Transport
- High Performance
- High Ti
- H-Mode
- Edge Turbulence
- Update Information
- ISHPDB Working Data
- How to access?
- Stellarator Turbulence

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Devices: LHD

032940
Fit Coefficients
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lhd_032940_002003_v0001_0d.dat
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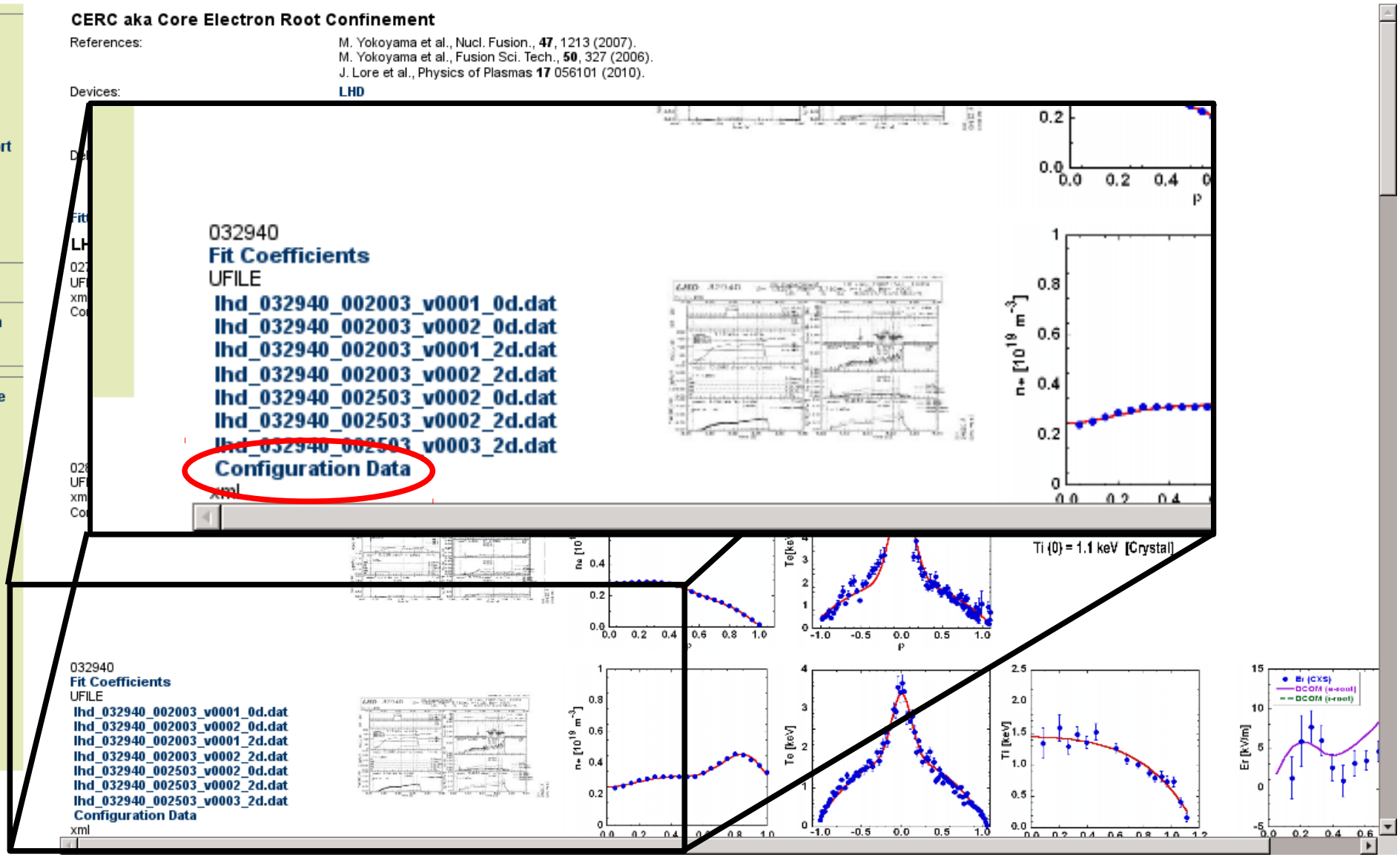
lhd_032940_002003_v0001_2d.dat
lhd_032940_002003_v0002_2d.dat
lhd_032940_002503_v0002_0d.dat
lhd_032940_002503_v0002_2d.dat
lhd_032940_002503_v0003_2d.dat
Configuration Data
xml



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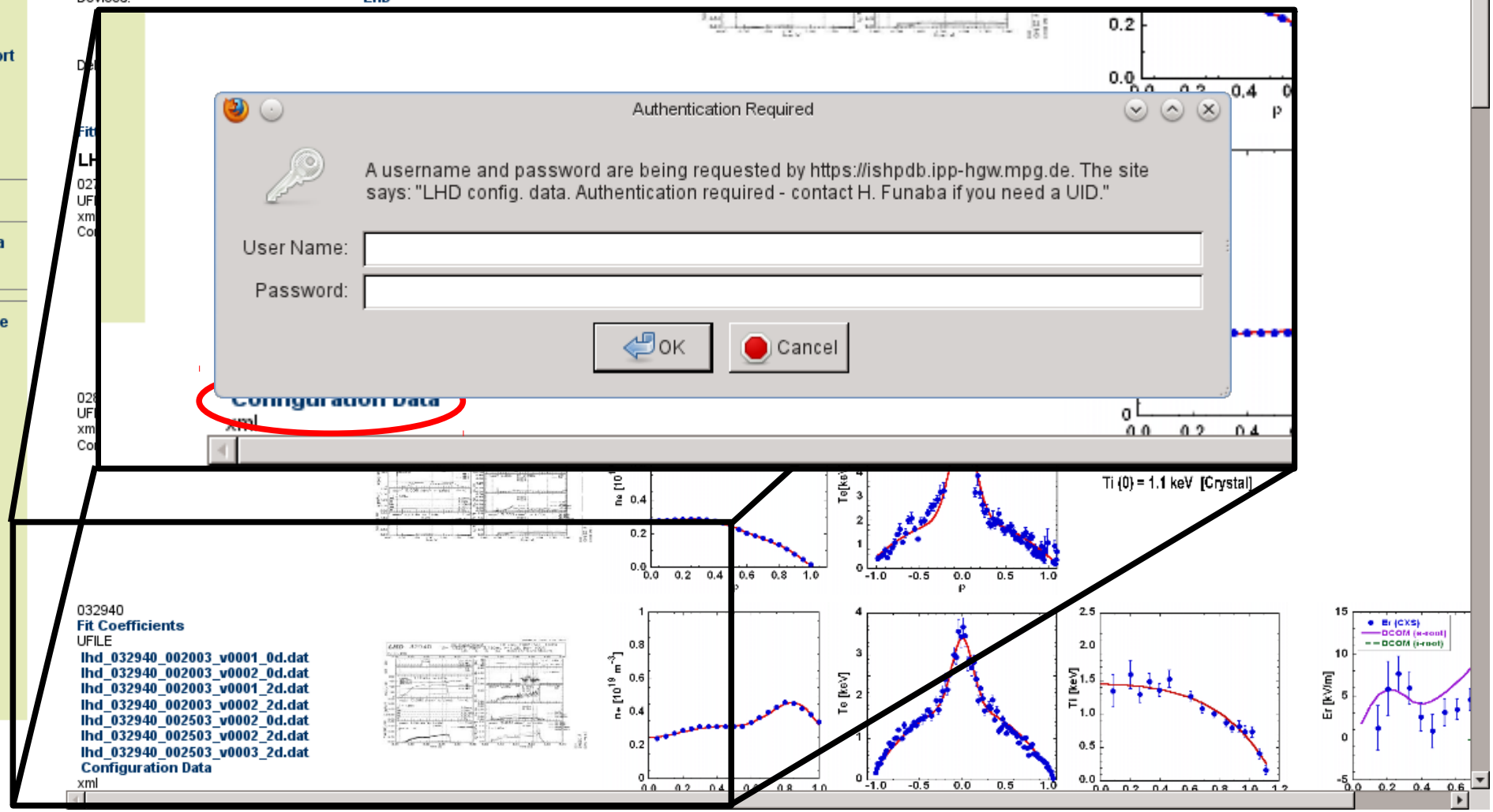
Devices: LHD



Access to configurations

Registration necessary : user-id + password

LHD : Masayuki Yokoyama
W7-AS: Andreas Kus
TJ-II: Juan Antonio Jimenez

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Index of /ISS/working/ISHPDB_working/devices /LHD/configuration/032940_2s

Name	Last modified	Size	Description
Parent Directory		-	
calc_info. lhd_032940_002003.txt	03-Jun-2011 10:47	141	
input.r375q100b000a8020_vmec	03-Jun-2011 10:47	8.7K	
jxbout.r375q100b000a8020_vmec	03-Jun-2011 10:47	4.4M	
mercier.r375q100b000a8020_vmec	03-Jun-2011 10:47	12K	
threed1.r375q100b000a8020.txt	03-Jun-2011 10:47	88K	
wout.r375q100b000a8020_vmec	03-Jun-2011 10:47	1.7M	

Apache/2.2.12 (Linux/SUSE) Server at ishpdb.ipp-hgw.mpg.de Port 443

Devices up to now (no equilibrium data → mainly in turbulence investigations):

- **AUG**
- **CHS**
- **HSX** *(2010: is also to come – no date yet (2013))*
- **LHD** (*three cases*)
  - ***CERC #032940_2s***
  - ***valid. of neocl. transp. #109696_004400***
  - ***high-Ti #090982_002366***
- **MAST**
- **TJII** *(four cases)*
  - ***CERC #15480 & 15485***
  - ***H-Mode #18998 & 19002***
- **TJ-K**
- **U-3M**
- **W7AS**
  - ***high-β #51755, 54022, 54023***
  - ***CERC #36712, 36908, 37015, 37389, 37390, 42752, 42778***
  - ***high performance #34187, 34313, 34609***
- **WEGA**

Output-files and formats:

- **minimum set of vmec-files : input, threed1, wout (ascii-format)**
- **TJ-II → provided as zip-archives**
- **W7AS → part as tar-archives**
- **vmec-versions:**
  - **LHD → 6.90**
  - **TJ-II → 8.46**
  - **W7AS → vmec9011, 6.90, 8.00, 8.46**

Devices up to now (no equilibrium data → mainly in turbulence investigations):

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- **WEGA**

Output-files and formats:

- **minimum set of vmec-files : input, threed1, wout (ascii-format)**
- **TJ-II → provided as zip-archives for download**
- **LHD/W7AS → file access (partly structured in folders)**
- **vmec-versions:**
  - **LHD → 6.90**
  - **TJ-II → 8.46**
  - **W7AS → vmec9011, 6.90, 8.00, 8.46**

Conclusions

- Increase in number of devices (LHD, TJ-II & W7-AS (HSX?...))
  and of configurations

- Ready to be accessed and used
  - → Only use reveals strengths and weaknesses!
  - → UID+password for access → A. Kus, M. Yokoyama
- Question:
  - free-boundary calculations → extracted final vmec-boundary?

- Thanks to all contributors and for discussions
  - A. Dinklage, J.A. Jimenez, A. Kus, M. Yokoyama