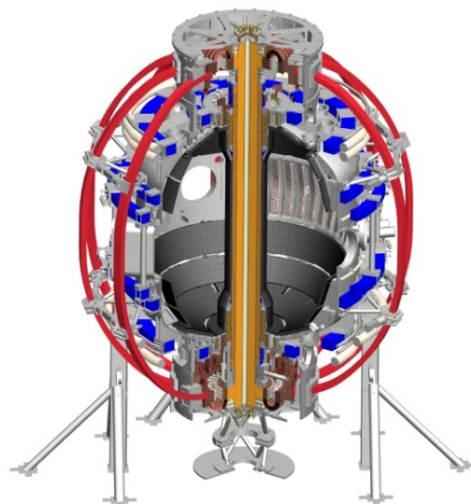


ASC Five Year Plan Chapter Status

Stefan Gerhardt

Coll of Wm & Mary
Columbia U
CompX
General Atomics
FIU
INL
Johns Hopkins U
LANL
LLNL
Lodestar
MIT
Lehigh U
Nova Photonics
ORNL
PPPL
Princeton U
Purdue U
SNL
Think Tank, Inc.
UC Davis
UC Irvine
UCLA
UCSD
U Colorado
U Illinois
U Maryland
U Rochester
U Tennessee
U Tulsa
U Washington
U Wisconsin
X Science LLC



Culham Sci Ctr
York U
Chubu U
Fukui U
Hiroshima U
Hyogo U
Kyoto U
Kyushu U
Kyushu Tokai U
NIFS
Niigata U
U Tokyo
JAEA
Inst for Nucl Res, Kiev
Ioffe Inst
TRINITI
Chonbuk Natl U
NFRI
KAIST
POSTECH
Seoul Natl U
ASIPP
CIEMAT
FOM Inst DIFFER
ENEA, Frascati
CEA, Cadarache
IPP, Jülich
IPP, Garching
ASCR, Czech Rep

Present Status

- ~75% finished with draft introductory section.
- Have not started with main body of text.
- Primary chapter author is me (SPG).
- Next most important author is Egemen Kolemen
 - Need him mostly for any description of state-feedback development for profile control.
 - Can use Lehigh or main campus folks as well.
 - He is at KSTAR right now, for ~2 weeks (I think?).
 - Will nag him upon his return to the States.
- Will be talking to R. Raman, G. Taylor, V. Soukhanovskii, W. Guttenfelder, D. Mueller, J.-K. Park, S. Sabbagh about other topics.
 - This mostly “consultative”...not anticipating significant writing assignments for these people.

Required Analysis

- No major analysis tasks required.
 - Will use enormous database of TRANSP runs to generate required figures for most sections.
- Potential analysis if nothing better to do:
 - Analysis of actual closed-loop rotation or q_{\min} control.
 - Would need a large chunk of time from E. Kolemen.
 - TRANSP analysis of NB rampup.
 - Not CHI...would start from a lower density ohmic target.
 - Look to understand the evolution of q_{\min} , F_p , β_N ...is there a stable trajectory.
 - Recently finished voltage control mode in TRANSP makes this possible.