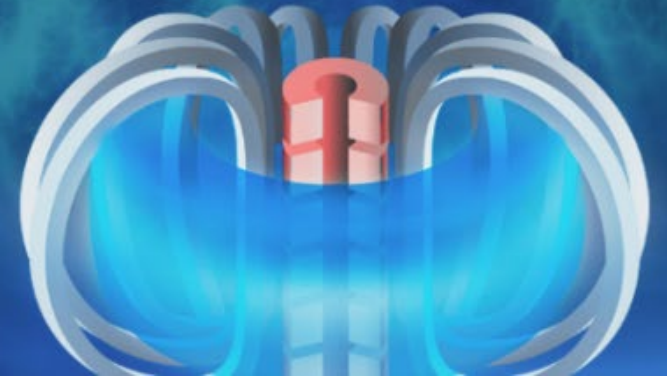


# 2<sup>ND</sup> FUSION MAGNET COMMUNITY WORKSHOP



<b>Tuesday January 21, 2025</b>		<a href="#">FSU Workshop Website</a>		
	Transportation	<b>Astro Bus on site at the Hyatt House to transport attendees to the lab</b>	7:00 – 7:30 AM	
<b>Welcome</b>	FSU-NHMFL	Opening Remarks	8:00 - 8:05 AM	K. Amm
	FSU-NHMFL	Welcome note from ASC	8:05 - 8:10 AM	D. Larbalestier
	PPPL	Summary from the March 2023 workshop	8:10 - 8:20 AM	Y. Zhai
	FES	Charge questions and expected outcomes	8:20 - 8:35 AM	J. King
	PPPL	Workshop objectives, focused topics, activities since 2023 workshop	8:35 - 8:50 AM	Y. Zhai
	ASC-NHMFL	Grand challenges of HTS conductor technologies	8:50 - 9:10 AM	D. Larbalestier
	SNU	Grand challenges of high field HTS magnet technologies	9:10 - 9:30 AM	S. Hahn
<b>Coffee Break</b>				
<b>Session I Perspective from Private Sector</b>				
	CFS	CFS needs from a public program	9:45 - 10:00 AM	M. Segal
	TE	TE priorities from public program (conductor inspection & test stand)	10:00 - 10:15 AM	G. Brittles

	TAE	TAE magnet needs (low cost, Alt. conductor options)	10:15 - 10:30 AM	G. Snitchler
	Type One	Type One Energy magnet R&D needs	10:30 - 10:45 AM	Z. Johnson
	Realta	HTS magnet needs/options for HAMMiR	10:45 - 11:00 AM	C. Jacobson
	THEA	Motivation for conductor inspection needs for THEA	11:00 - 11:15 AM	D. Nash
	Stellarex	HTS conductor needs for Stellarex coils	11:15 - 11:30 AM	M. Zarnstorff
	Gauss Fusion	Gauss Fusion magnet technology and qualification program	11:30- 11:45 AM	N. Mitchell
	<b>Q&amp;A - Discussion of private sector view of magnet program</b>		11:45 - 12:15 PM	
<b>Lunch Break</b>				
<b>Session II Perspective from Public Sector</b>				
	NHMFL	Vision for NSF, DOE and NIH partnership on HTS magnet development	1:00 - 1:15 PM	K. Amm
	PPPL	Configuration and magnet issues for spherical tokamak-based reactors	1:15 - 1:30 PM	J. Menard
	GA	ITER CS magnets & facility Options (spare CS module as user facility?)	1:30 - 1:45 PM	N. Norausky
	MIT-PSFC	Support CFS TFMC & CSMC with High Field Test Facilities at MIT-PSFC	1:45 - 2:00 PM	T. Golfinopoulos
	<b>Q&amp;A - Discussion of public sector view of magnet program</b>		2:00 - 2:30 PM	
<b>Coffee Break</b>				
	FES	Overview of FES Programs and Roadmap Development	2:45 - 3:00 PM	J.P Allain
<b>Session III Topics on Technical Development</b>				

Radiation effects				
	MIT-PFSC	Radiation resistant materials - conductor and insulation	3:00 - 3:15 PM	D. Fischer
	UKAEA	Radiation test facilities at UKAEA	3:15 - 3:30 PM	S. Wimbush
	ORNL	Radiation needs and potential approaches to address the needs	3:30 - 3:45 PM	R. Duckworth
Conductor Characterization				
	FSU-NHMFL	NHMFL 40 T conductor characterization (20 K, 16 T/110 mm magnet)	3:45 - 4:00 PM	D. Abraimov
	FSU-DC Fields	Massive characterization of REBCO at NHMFL and who is interested	4:00 - 4:15 PM	J. Jaroszynski
	PPPL	PPPL effort toward 20 K, 20 T HTS inspection capabilities	4:15 - 4:30 PM	Y. Zhai
Quench Detection and Protection				
	CFS	Quench detection and coil protection at CFS	4:30 - 4:45 PM	E. Salazar
	LBNL	Quench detection and protection at LBNL	4:45 - 5:00 PM	Marchevsky
	FSU-NHMFL	Quench modeling effort at MS&T for 40 T	5:00 - 5:15 PM	T. Painter
	<b>Q&amp;A - Discussion of R&amp;D gaps and research priorities</b>		5:15 - 5:45 PM	
<b>Group Dinner at the Hyatt House</b>		Remark on Fusion Technology Development	<b>7:00 PM</b>	M. Ford
<b>Wednesday January 22, 2025</b>		<b>Remote due to weather</b>		
<b>Session IV Topics on Magnet Test Facilities</b>				
Magnet Test Facilities - Existing & Planned		what are the present and the missing test facilities?	large bore test facility	

Existing	MIT-PSFC	HTS magnet test facilities at PSFC & Irradiation relevant tests	8:00 - 8:15 AM	T. Golfinopoulos
	FSU-ASC	The ASC 160 mm bore 12 T 10 kA test facility	8:15 - 8:30 AM	D. Davis
	PPPL	Large bore high field fast ramp coil test facility	8:30 - 8:45 AM	Y. Zhai
	PFT-NHMFL	Pulsed Field Test facility at LANL	8:45 - 9:00 AM	B. Maiorov
Future - Planned	FermiLab	HTS cable testing & conductor qualification	9:00 - 9:15 AM	S. Gourlay
Future - Planned	ORNL	A candidate testing facility at ORNL with a 13 T warm bore magnet	9:15 - 9:30 AM	B. Winn
Future - Planned	NHMFL	Large bore resistive magnet rebuild plan at MS&T	9:30 - 9:45 AM	T. Painter
	<b>Q &amp; A - Discussions on magnet test stands</b>		9:45 - 10:15 AM	
<b>Coffee Break</b>				
<b>Session V on Conductor and Cable Supply</b>				
	FFJ	REBCO supply and production capability at FFJ	10:30 - 10:45 AM	A. Molodyk
	SuperPower	REBCO supply and production capability	10:45 - 11:00 AM	Y. Zhang
	HTSi	Status of HTSi coated conductor production	11:00 - 11:15 AM	R. Karam
	AMPeers	Perspective on industrial manufacture of coated conductor, strand & cable	11:15 - 11:30 AM	V. Selvamanickam
	ACT	CORC Cable supply and production capability	11:30 - 11:45 AM	D. van der Laan
	Bruker EST	High field conductor supply & production capability	11:45 - 12:00 PM	J. Parrell
	SMS	Bi-2212 supply & production capability	12:00 - 12:15 PM	A. Otto
	FSU	Overview on conductor - project perspective / supply chain	12:15 - 12:30 PM	L. Cooley
	<b>Q &amp; A - Discussions on Conductor Supply</b>		12:30 - 1:00 PM	

<b>Lunch Break</b>				
<b>Session VI Workforce Training Programs</b>				
	Type One	Workforce Training - pipe line supply	2:00 - 2:15 PM	Z. Johnson
	FSU_FAMU	ASC education program at FSU-FAMU	2:15 - 2:30 PM	L. Cooley
	MIT-PSFC	MIT experience on superconducting magnet education	2:30 - 2:45 PM	T. Golfinopoulos
	UH	UH education program on ASC	2:45 - 3:00 PM	V. Selvamanickam
	PPPL	PPPL ME Program with PU; Apprantice Program on Workforce Training	3:00 - 3:15 PM	M. Ford
	ORNL - UT Knoxville	ORNL - UT education Program on fusion	3:15 - 3:30 PM	R. Duckworth
	<b>Q &amp; A - Discussions on Workforce &amp; Education Program</b>		3:30 - 4:00 PM	
<b>Thursday January 23, 2025</b>				
	Transportation	<b>Astro bus on site at the Hyatt House to transport attendees to the Lab</b>	7:40 – 8:10 AM	
<b>Strategic directions and R&amp;D Roadmap discussion</b>			8:30 - 9:00 AM	
	<b>Breakout Sessions</b>	<b>Focused Topical Discussions</b>		
<b>Private + public</b>	in parallel	Critical R&D Gaps	9:00 - 11:00 AM	Zhai/Labalestier
	in parallel	Test Facilities	9:00 - 11:00 AM	Segal/Gourlay
	in parallel	Technology Development	9:00 - 11:00 AM	Hahn/Prestemon
	in parallel	Workforce Training	9:00 - 11:00 AM	Johnson/Duckworth
	in parallel	US Supply Chain	9:00 - 11:00 AM	Segal/Johnson

	Transportation	<b>Astro bus onsite at the lab to transport attendees to TLH &amp; Hyatt House</b>	11:15 AM	
<b>Day 3 Afternoon - Focus on outcomes and draft summary report</b>		Committee member discussion on final report	12:00 - 2:00 PM	OC only

Please be Brief and make points in 10 mins and leave 5 mins for short questions.