

Theme: Achieving and Understanding the Burning Plasma State in ITER

Jim Van Dam, Chair

Mickey Wade, Vice chair

John Mandrekas, OFES champion

Understanding alpha particle effects

Spong	Don	ORNL	Lead
Berk	Herb	U Texas	
Gorelenkov	Nikolai	PPPL	
Nazikian	Raffi	PPPL	
Van Zeeland	Mike	GA	

Extending confinement to reactor conditions

Petty	Craig	GA	Lead
Hughes	Jerry	MIT	
Mikkelsen	Dave	PPPL	
Rice	John	MIT	
Rowan	Bill	U Texas	
Terry	Paul	U Wisc	

Creating a self-heated plasma

Parker	Ron	MIT	Lead
Casper	Tom	LLNL	
Kessel	Chuck	PPPL	
Meade	Dale	PPPL	
Murakami	Masanori	ORNL	
Prater	Ron	GA	
Wukitch	Steve	MIT	

Controlling and sustaining a self-heated plasma

(Joint with Theme II Control panel)

Humphreys	Dave	GA	Lead, HPSS
Ferron	John	GA	Deputy, BP
Casper	Tom	LLNL	
Gates	David	PPPL	
LaHaye	Rob	GA	
Petrie	Tom	GA	
Turnbull	Alan	GA	
Weaver	Thomas	Boeing	
Wolfe	Steve	MIT	

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Mitigating transient events in a self-heated plasma

(Joint with Theme II Off-normal plasma events panel)

Hawryluk	Rich	PPPL	Lead, BP
Knowlton	Steve	Auburn	Deputy, HPSS
Menard	Jon	PPPL	Deputy, BP
Boozer	Allen	Columbia	
Fredrickson	Eric	PPPL	
Granetz	Bob	MIT	
Izzo	Val	UCSD	
Strait	Ted	GA	
Wesley	John	GA	
Whyte	Dennis	MIT	

Diagnosing a self-heated plasma

(Joint with Theme II Measurement panel)

Terry	Jim	MIT	Lead, BP
Boivin	Rejean	GA	Deputy, HPSS
Austin	Max	U Texas	
Biewer	Ted	ORNL	
Brower	David	UCLA	
Den Hartog	Daniel	U Wisc	
Dorland	Bill	U Maryland	
Johnson	David	PPPL	
McKee	George	U Wisc	
Pebbles	Tony	UCLA	
Stutman	Dan	Johns Hopkins	
Young	Ken	PPPL	

Theme: Creating Predictable High-Performance Steady-State Plasmas

Amanda Hubbard, Chair

Chuck Greenfield, Vice chair

Mark Foster, OFES champion

Plasma modification by auxiliary systems

Wilson	Randy	PPPL	Lead
Baylor	Larry	ORNL	
Berry	Lee	ORNL	
Goetz	John	U Wisc	
Grisham	Larry	PPPL	
Porkolab	Miklos	MIT	
Prater	Ron	GA	
Raman	Roger	U Wash	
Temkin	Rick	MIT	

Control

(Joint with Theme I Controlling and sustaining a self-heated plasma panel)

Humphreys	Dave	GA	Lead, HPSS
Ferron	John	GA	Deputy, BP
Casper	Tom	LLNL	
Gates	David	PPPL	
LaHaye	Rob	GA	
Petrie	Tom	GA	
Turnbull	Alan	GA	
Weaver	Thomas	Boeing	
Wolfe	Steve	MIT	

Integration of high-performance steady-state plasmas

Kessel	Chuck	PPPL	Lead
Anderson	Dave	U Wisc	
Bonoli	Paul	MIT	
Garafolo	Andrea	GA	
Lipschultz	Bruce	MIT	
Meade	Dale	FIRE	
Murakami	Masanori	ORNL	
Najmabadi	Farrokh	UCSD	

Theme: Creating Predictable High-Performance Steady-State Plasmas

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Validated predictive modeling

Tynan	George	UCSD	Lead
Budny	Bob	PPPL	
Carter	Troy	UCLA	
Chang	C.S.	NYU	
Greenwald	Martin	MIT	
Kritz	Arnold	Lehigh	
Snyder	Phil	GA	
Tang	Bill	PPPL	
Wright	John	MIT	

Measurement

(Joint with Theme I Diagnosing a self-heated plasma panel)

Terry	Jim	MIT	Lead, BP
Boivin	Rejean	GA	Deputy, HPSS
Austin	Max	U Texas	
Biewer	Ted	ORNL	
Brower	David	UCLA	
Den Hartog	Daniel	U Wisc	
Dorland	Bill	U Maryland	
Johnson	David	PPPL	
McKee	George	U Wisc	
Pebbles	Tony	UCLA	
Stutman	Dan	JHU	
Young	Ken	PPPL	

Magnets

Minervini	Joseph	MIT	Lead
Bromberg	Leslie	MIT	
Gouge	Mike	ORNL	
Larbalestier	David	Florida State	
Nelson	Brad	ORNL	
Sabbi	Gian Luca	LBNL	
Thome	Dick	GA	

Theme: Creating Predictable High-Performance Steady-State Plasmas

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Off-normal plasma events

(Joint with Theme I Mitigating transient events in a self-heated plasma panel)

Hawryluk	Rich	PPPL	Lead, BP
Knowlton	Steve	Auburn	Deputy, HPSS
Menard	Jon	PPPL	Deputy, HPSS
Boozer	Allen	Columbia	
Frederickson	Eric	PPPL	
Granetz	Bob	MIT	
Izzo	Val	UCSD	
Strait	Ted	GA	
Wesley	John	GA	
Whyte	Dennis	MIT	

Theme: Plasma-Material Interface

Mike Ulrickson, Chair

Rajesh Maingi, Vice chair

Rostom Dagazian, OFES champion

Plasma-wall interactions

Brooks	Jeff	Purdue	Lead
Allain	Jean Paul	Purdue	
Goldston	Rob	PPPL	
Hillis	Don	ORNL	
Kotschenreuther	Mike	U Texas	
LaBombard	Brian	MIT	
Rognlein	Tom	LLNL	
Stangeby	Peter	U Toronto	
Tang	Xianzhu	LANL	

Plasma facing components

Wong	Clement	GA	Lead
Doerner	Russ	UCSD	
Leonard	Tony	GA	
Lipschultz	Bruce	MIT	
Majeski	Dick	PPPL	
Merrill	Brad	INL	
Milora	Stan	ORNL	
Youchison	Dennis	SNL	

Internal components

Callis	Richard	GA	Lead
Caughman	John	ORNL	
Irby	Jim	MIT	
Jarboe	Tom	U Wash	
Leuer	Jim	GA	
Peebles	Tony	UCLA	
Rasmussen	David	ORNL	
Whyte	Dennis	MIT	
Wilson	Randy	PPPL	

Theme: Harnessing Fusion Power

Wayne Meier, Chair

Rene Raffray, Vice chair

Barry Sullivan, OFES champion

Fuel cycle

Willms	Scott	LANL	Lead
Baylor	Larry	ORNL	
Klein	Jim	SRNL	
Peng	Martin	ORNL	
Sze	Dai-Kai	UCSD	
Ying	Alice	UCLA	

Power extraction

Morley	Neil	UCLA	Lead
Baker	Charlie	Self Emp	
Calderoni	Patrick	INL	
Nygren	Richard	SNL	
Rowcliffe	Arthur	ORNL	
Sawan	Mohamed	U Wisc	
Stambaugh	Ron	GA	
Yoder	Grady	ORNL	

Materials science

Kurtz	Rick	PNNL	Lead
Mauel	Mike	CU	
Nastasi	Michael	LANL	
Odette	Bob	UCSB	
Sharafat	Shahram	UCLA	
Stoller	Roger	ORNL	
Zinkle	Steve	ORNL	

Safety

Sharpe	Phil	INL	Lead
El-Guebaly	Laila	U Wisc	
Fiore	Catherine	MIT	
Korsah	Kofi	ORNL	
Marra	Jim	SRNL	
Uckan	Nermin	ORNL	

RAMI

Reiersen	Wayne	PPPL	Lead
Abdou	Mohamed	UCLA	
Burgess	Tom	ORNL	
Cadwallader	Lee	INL	
Sheffield	John	UT	
Smith	John	GA	
Wagner	Les	Boeing	

Theme: Optimizing the Magnetic Configuration

John Sarff, Chair

Mike Zarnstorff, Vice chair

Sam Barish, OFES champion

Compact toroid

Hooper	Bick	LLNL	Lead
Belova	Elena	PPPL	
Brown	Mike	Swarthmore	
Cohen	Sam	PPPL	
Hoffman	Alan	U Wash	
Hsu	Scott	LANL	
Intrator	Tom	LANL	
Jarboe	Tom	U Wash	
Milroy	Richard	U Wash	
Schaffer	Michael	GA	
Sovinec	Carl	U Wisc	dual member
Tang	Xianzhu	LANL	
Woodruff	Simon	Woodruff Sci	
Yamada	Masaaki	PPPL	

Reversed-field pinch

Ji	Hantao	PPPL	Lead
Chapman	Brett	U Wisc	
Den Hartog	Daniel	U Wisc	
Fiksel	Gennady	U Wisc	
Martin	Piero	RFX	
Najmabadi	Farrokh	UCSD	
Prager	Stewart	PPPL/U Wisc	
Sovinec	Carl	U Wisc	dual member

Spherical torus

Sabbagh	Steve	CU	Lead
Gorelenkov	Nikolai	PPPL	
Hegna	Chris	U Wisc	dual member
Kotschenreuther	Mike	U Texas	
Majeski	Dick	PPPL	
Menard	Jon	PPPL	
Peng	Martin	ORNL	
Sontag	Aaron	ORNL	
Soukhanovskii	Vlad	LLNL	
Stutman	Dan	JHU	

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Stellarator

Anderson	David	U Wisc	Lead
Harris	Jeff	ORNL	
Hegna	Chris	U Wisc	dual member
Freidberg	Jeff	MIT	
Knowlton	Steve	Auburn	
Mael	Michael	CU	
Reiman	Allan	PPPL	
Ware	Andrew	U Montana	
Weitzner	Harold	NYU	