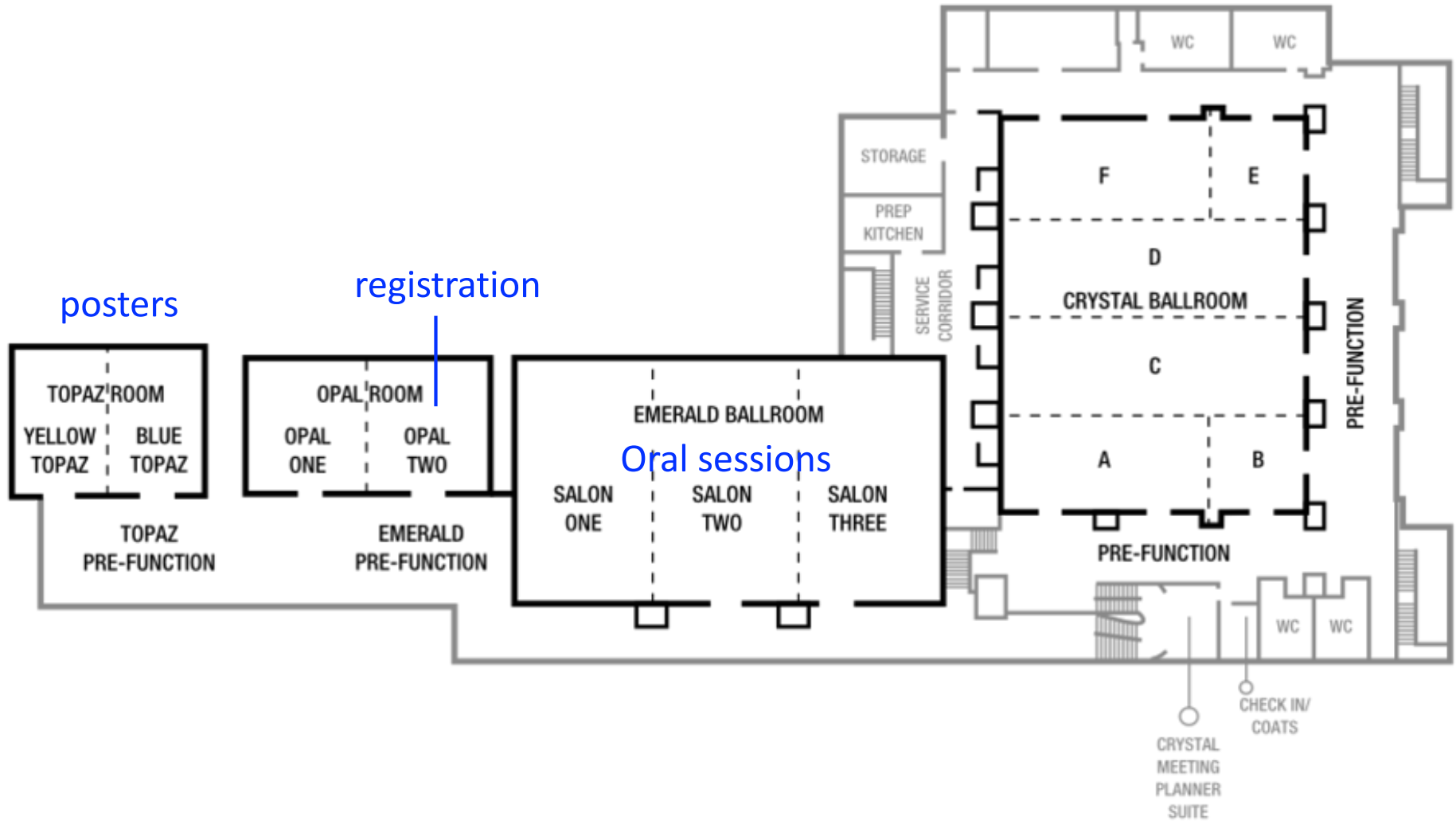


CONVENTION CENTER & MEETING ROOMS CAPACITIES



MONDAY

TUESDAY

WEDNESDAY

THURSDAY

8:00 AM	P1 Emerald			P2 Emerald			P3 Emerald			P4 Emerald		
10:00 AM	break			break			break			break		
10:20 AM	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	
12:20 PM	Salon 1 O1A.1	Salon 2 O1A.2	Salon 3 O1A.3	Salon 1 O2A.1	Salon 2 O2A.2	Salon 3 O2A.3	Salon 1 O3A.1	Salon 2 O3A.2	Salon 3 O3A.3	Salon 1 O4A.1	Salon 2 O4A.2	Salon 3 O4A.3
	Lunch			Lunch			Lunch			Lunch		
1:30 PM	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	Emerald	
3:30 PM	Salon 1 O1B.1	Salon 2 O1B.2	Salon 3 O1B.3	Salon 1 O2B.1	Salon 2 O2B.2	Salon 3 O2B.3	Salon 1 O3B.1	Salon 2 O3B.2	Salon 3 O3B.3	Salon 1 O4B.1	Salon 2 O4B.2	Salon 3 O4B.3
	break			break			break			break		
3:50 PM	Emerald	Emerald	Topaz posters	Emerald	Emerald	Emerald	Salon 1	Emerald Salon 2	Salon 3	Salon 1	Emerald Salon 2	Salon 3
5:50 PM	Salon 2 O1C.1	Salon 3 O1C.2	PS1	Salon 1 O2C.1	Salon 2 O2C.2	Salon 3 O2C.3	O3C.1	O3C.2	O3C.3			
	6:00 PM Reception 8:00 PM			Student/professional career session, talks and Nat'l Lab setup job openings			6:30 PM Banquet 9:30 PM					

8:00 AM




Emerald

P1-1 Melissa Hanson, SRNL, **History of Savannah River Nat’l Laboratory** (30+5)
 P1-2 Yannick LeTonqueze, ITER, **ITER Nuclear Integration Unit Activities** (30+5)
 P1-3 Heather Lewtas, UKAEA, **Technology Transfer into/out of Fusion** (30+5)

10:00 AM

break

10:20 AM




Emerald
Salon 1 Salon 2 Salon 3

O1A.1 Nuclear Analysis and Validation (30+5, 3 x 20+4)
 O1A.2 Plasma/Enabling Tech(5 x 20+4)
 O1A.3 Tritium Fuel Cycle (6 x 20+4)

12:20 PM

Lunch

1:30 PM




Emerald
Salon 1 Salon 2 Salon 3

O1B.1 Plasma/Enabling Tech (5 x 20+4)
 O1B.2 Magnets (5 x 20+4)
 O1B.3 [Student presentations](#)

3:30 PM

break

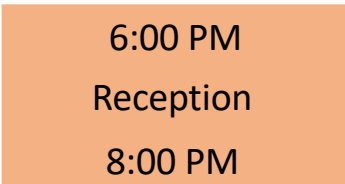
3:50 PM



Emerald
Salon 2 Salon 3 Topaz posters

O1C.1 Materials and Advanced Manufacturing (5 x 20+4)
 O1C.2 Blanket Design (5 x 20+4)
 PS1 [Posters](#)

5:50 PM



6:00 PM
Reception
8:00 PM

P1 – Plenary, Monday
 O1A – Oral, Monday morning
 O1B – Oral, Monday early afternoon
 O1C – Oral, Monday late afternoon
 PS1 – Poster session, Monday afternoon

Nuclear Analysis and Validation (30+5, 3 x 20+4)

O1A.1-1 Ulrich Fischer, Strategical approach for the neutronics in the European fusion program, (30+5)

O1A.1-2 P. V. Subhash, Overview of nuclear code development activities at ITER-India, (20+4)

O1A.1-3 Quinjun Zhu, Neutronics experiment of mock-up for CFETR water cooled ceramic breeder blanket, (20+4)

O1A.1-4 Lee Packer, Neutronics and nuclear data activities at UKAEA, (20+4)

Plasma/Enabling Tech (5 x 20+4)

O1A.2-1 Akhil Jha, Design of combline antenna, (20+4)

O1A.2-2 Robert Lunsford, Particulate impurity injection techniques, (20+4)

O1A.2-3 William Kalb, Mechanical design challenges for a high field side LH launcher, (20+4)

O1A.2-4. Christopher Murphy, Implementation of advanced engineering and manufacturing practices for DIII-D upgrades and improvements, (20+4)

O1A.2-5 Christopher Chrobak, Implementation of a collaborative robotic arm for component positioning and welding inside the DIII-D tokamak, (20+4)

Tritium Fuel Cycle (6 x 20+4)

O1A.3-1 Jason Wilson, Which way does it go, The ITER tokamak exhaust processing system operational concept, (20+4)

O1A.3-2 Yuji Hatano, Effects of neutron irradiation on hydrogen isotope removal from tungsten, (20+4)

O1A.3-3 Donald Ryland, Canadian tritium capabilities for the fusion community, (20+4)

O1A.3-4 Paul Humrickhouse, A new implementation of the tritium migration and permeation code TMAP, (20+4)

O1A.3-5 Makoto Oyaizu, Preliminary estimate of tritium migration for a A-FNS lithium target system, (20+4)

O1A.3-6 Cody Fagan, Tritium concentration profiles in 316 SS samples, (20+4)

Plasma/Enabling Tech (5 x 20+4)

O1B.1-1 Dang Cui, Center stack bakeout NSTX-U, (20+4)

O1B.1-2 Juan Caneses, Characterizing the plasma-induced thermal loads on a 200 kW light ion helicon plasma source, (20+4)

O1B.1-3 Lili Zhu, Upgrade of EAST poloidal field power supply DAQ system, (20+4)

O1B.1-4 Xin Chen, Design of 30W/2K superfluid helium cryogenic system of the HL-2M tokamak, (20+4)

O1B.1-5 Thorston Loewer, Pro-beam involved in ambitious research project ITER to build the main reactor vessel, (20+4)

Magnets (5 x 20+4)

O1B.2-1 Thomas Painter, First test results of the integrated coil form technology, (20+4)

O1B.2-2 Anna Encheva, Qualification and manufacturing ITER in-vessel coil conductor, (20+4)

O1B.2-3 Yuhu Zhai, Fusion magnet qualification of the NSTX-U inner TF bundle using high fidelity models, (20+4)

O1B.2-4 Daniel Klasing, Clad superconducting coils, (20+4)

O1B.2-5 Sam Tippetts, Modeling of quench arcing in ITER superconducting magnets, (20+4)

[Student presentations \(TBD\)](#)

Materials and Advanced Manufacturing (5 x 20+4)

O1C.1-1 N. Hashimoto, In-situ observation of irradiation damage in FeCrNiCoMnx HEAs, (20+4)

O1C.1-2 Qunying Huang, R&D of casting ODS ferritic martensitic steel for fusion, (20+4)

O1C.1-3 Cuncai Fan, Effect of crystallographic orientation on damage evolutions in He-implanted tungsten, (20+4)

O1C.1-4 Feng Fan, Mechanical property and microstructure of W-Y₂O₃ alloy processed by high energy rate forging, (20+4)

O1C.1-5 Lance Snead, Next generation copper alloys for high heat flux applications, (20+4)

Blanket Design (5 x 20+4)

O1C.2-1 Damon Johnstone, CHIMERA integrated testing facility and fusion component qualification, (20+4)

O1C.2-2 Bin Wu, Development of SuperMC Multiphysics simulation capability for fusion blanket design application, (20+4)

O1C.2-3 Kio Takai, Direct evaluation of effective thermal conductivity of a sphere-packed bed by heat conduction simulation, (20+4)

O1C.2-4 Zihan Liu, Analysis of flow oscillations in parallel channels for WCCB blanket using RELAP5/MOD3.4, (20+4)

O1C.2-5 Guangyon Sun, Blanket nuclear design, (20+4)

Posters

- PS1-1 Christina Koehly**, Design of a scaled WCLL TBM mockup for MHD experiments.
- PS1-2 Han Zhang**, Modeling magnetic material using vector potential based elements in ANSYS
- PS1-3 Wenlong Zhao**, Progress on engineering design of the blanket remote maintenance equipment for CFETR
- PS1-4 Takahiro Matano**, Study on tritium transfer to plants from soil exposed to tritiated water
- PS1-5 Peter Titus**, Modeling delamination in TF insulation with ANSYS EKILL command
- PS1-6 Peter Titus**, FNSF Structural Sizing Studies
- PS1-7 Xiaorong Wang**, A circuit model for high temperature superconducting fusion cables
- PS1-8 Valter Cocilovo**, Design Optimization of D shaped superconducting magnets by multi-physics modeling
- PS1-9 Valter Cocilovo**, Analysis of Stress Induced by Disruptions Current Quench on In-Vessel Components by Shock Response Spectrum Methodology
- PS1-10 Lili Zhu**, Numerical study on the turbulent thermal penetration characteristics of CFETR divertor PHTS PZR surge line
- PS1-11 Shuwen Yu**, Study on Heat Transfer Characteristics of Subcooling in Fusion Reactor Divertor
- PS1-12 Joseph Tipton**, CFD V&V of Gas Cooling through channels with Rib Roughening
- PS1-13 Sungjin Kwon**, Thermomechanical analysis for the design of the KSTAR tungsten divertor
- PS1-14 Noriyuki Unno**, Heat transport augmentation using vibration material excited by boiling bubbles for heat removal from divertor
- PS1-15 Gediminas Stankunos**, Activation analysis VV component in DEMO
- PS1-16 Peng Lu**, Shutdown dose rate analysis of ECRH in CFETR
- PS1-17 Mark Pauley**, Characterization of Mode I Fatigue Delamination of CTD-425/S-Glass Composite for the Qualification of the NSTX-U Toroidal field inner bundle
- PS1-18 Nicholas Santoro**, Grafoil Performance in NSTX-U
- PS1-19 Yuchen Wu**, Thermal mixing characteristics of liquid metal film-flow with electrical conducting wall under vertical magnetic field
- PS1-20 Kunok Chang**, GPU-accelerated simulation of ion transport in tungsten material by ion implantation
- PS1-21 Clyde Beers**, Measurement of SiC chemical erosion in Proto-MPEX
- PS1-22 Elizabeth Lungquist**, Reconfiguration of an electrothermal arc source for in-situ PMI studies

Poster session, cont'd

- PS1-23 Payson Dieffenbach**, Design Optimization to measure ion temperature DIII-D
- PS1-24 Feng Cai**, NSTX-U Core Machine Vacuum Upgrade Design
- PS1-25 Jiarong Fang**, Dynamic Bolting Analysis of center stack casing G-10 Ring for NSTX-U
- PS1-26 Mark Smith**, Design and Analysis of NSTX-U1A Poloidal Field Coil Support
- PS1-27 Wenping Wang**, Dynamic design of in vessel diagnostics for ITER
- PS1-28 Aravind Shanmugasundaran**, Structural analysis of the US ITER ECH transmission line system
- PS1-29 Christopher Klepper**, Monte Carlo analysis of the performance of the ITER diagnostic residual gas analyzer
- PS1-30 Adriana Ghiozzi**, Pressure response optimization of an eddy current driven valve for the ITER shattered pellet injection system
- PS1-31 Sam Keener**, Procurement of ITER water cooling system
- PS1-32 Tao Zhang**, Multi-robot system
- PS1-33 Peter Dugan**, Virtual engineering environment
- PS1-34 Hong Ren**, Design of HL-2M vacuum vessel
- PS1-35 Yuncong Huang**, Thermal performance of HL-2M VV
- PS1-36 Guanghong Wang**, Archiving System for EAST PF Power Supply
- PS1-37 Praveenial Edappala**, Design of fast real-time signal processing system for plasma position control and disruption mitigation in Aditya-Upgrade tokamak
- PS1-38 Arlee Tanman**, Planning of Plasma Positioning Feedback Control by Using High-Speed camera and Image Processing Technique for Thailand Tokamak 1
- PS1-39 Qiheng Cai**, Optimization of Ion Flow Rates in a Helicon Injected IEC Fusion System
- PS1-40 Hodaka Osawa**, Parallel operation with 9 sets of inertial electrostatic confinement fusion (IECF) devices
- PS1-41 Teppei Ohta**, Identification of hydrogen isotope ratio on IECF experiment with getter pump using deuterium and tritium mixed gas

TUESDAY

8:00 AM

Emerald		
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- P2-1 Stephen Jones, NAMRC, **Nuclear Advanced Manufacturing** (30+5)
- P2-2 Paul Cloessner, SRNL, **Tritium R&D at SRNL** (30+5)
- P2-3 Nicholas Eidietis, GA, **Plasma Disruptions** (30+5)

10:00 AM

break

10:20 AM

Emerald		
Salon 1	Salon 2	Salon 3

- O2A.1 Plasma Facing Components, High Heat Flux, Divertor and First Wall (5 x 20+4)
- O2A.2 Materials & Advanced Manufacturing (5 x 20+4)
- O2A.3 Fusion Safety, Environment and Accident Scenarios (5 x 20+4)

12:20 PM

Lunch

1:30 PM

Emerald		
Salon 1	Salon 2	Salon 3

- O2B.1 Liquid Metals (5 x 20+4)
- O2B.2 Fusion Enterprise (5 x 20+4)
- O2B.3 Tritium Fuel Cycle (5 x 20+4)

3:30 PM

break

3:50 PM

Emerald		
Salon 1	Salon 2	Salon 3

- O2C.1 Plasma/Enabling Tech (5 x 20+4)
- O2C.2 Fusion Enterprise (4 x 20+4) + [panel discussion](#)
- O2C.3 Nuclear Analysis and Validation (5 x 20+4)

5:50 PM

6:30 PM

Student/professional career session, talks and Nat'l Lab setup job openings		
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P2 – Plenary, Tuesday
 O2A – Oral, Tuesday morning
 O2B – Oral, Tuesday early afternoon
 O2C – Oral, Tuesday late afternoon

Plasma Facing Components, High Heat Flux, Divertor and First Wall (5 x 20+4)**O2A.1-1 Daniel Lee**, Thermofluids of simplified flat plate HEMJ, (20+4)**O2A.1-2 Daniel Iglesias**, High heat flux divertor design for the high field tokamak ST-40, (20+4)**O2A.1-3 Jeong-Ha You**, Recent progress in high heat flux technology for DEMO divertor, (20+4)**O2A.1-4 Shekaib Ahmad Musa**, Experimental reversed heat flux investigation of helium cooled modular divertor, (20+4)**O2A.1-5 Dennis Youchison**, Tungsten armored graphitic foam, (20+4)**Materials & Advanced Manufacturing (5 x 20+4)****O2A.2-1 Gaku Yamazaki**, Corrosion of reduced-activation martensitic steel (JLF-1) and its alloying elements (Fe, Cr, and W) in LiF-NaF-KF melt, (20+4)**O2A.2-2 Jiheon Jun**, Compatibility of FeCrAlMo alloy in thermally convective eutectic PbLi up to 700 C, (20+4)**O2A.2-3 Artem Lunev**, Do interfacial oxides affect the late stage oxidation kinetics in tungsten, (20+4)**O2A.2-4 Spencer Scott**, Mechanical property changes in additively manufactured Ti-6Al-4V resulting from low level hydrogen exposure, (20+4)**O2A.2-5 Jae-Hwan Kim**, Current status of purification and recycling process on beryllium compounds as neutron multipliers for fusion applications, (20+4)**Fusion Safety, Environment and Accident Scenarios (5 x 20+4)****O2A.3-1 Zhibin Chen**, Radioactive dust air ingress LOVA, (20+4)**O2A.3-2 Xiaoman Cheng**, Progress in design development and safety study of WCCB blanket primary heat transfer system, (20+4)**O2A.3-3 Kazunari Katayama**, Tritium trapping in soil immersed in tritiated water, (20+4)**O2A.3-4 Andrea Zappatore**, 3D CFD hypersonic flow simulation for in-vessel LOCA in EU-DEMO tokamak fusion reactor, (20+4)**O2A.3-5 Joseph Patrella**, NSTX-U Personnel Safety System – Safety Instrumented System Development and Design, (20+4)

Liquid Metals (5 x 20+4)

O2B.1-1 David Rapisarda, Recent CIEMAT experimental activities on liquid metals for fusion applications, (20+4)

O2B.1-2 Peter Huang, Incompressible MHD solver for applications in liquid metal blankets and plasma, (20+4)

O2B.1-3 Sergey Smolentsev, Full segment and modular DCLL simulations, (20+4)

O2B.1-4 Oleg Zikanov, Anomalous fluctuations in pipes and ducts in strong magnetic fields, (20+4)

O2B.1-5 Luigi Candido, Analysis of MHD effect on drainage of PbLi channel for WCLL and HCLL breeding blankets, (20+4)

Fusion Enterprise (5 x 20+4)

O2B.2-1 Michel Laberge, MTF at General Fusion, (20+4)

O2B.2-2 Jamie Darling, First Light Fusion: Solving the problem of fusion power with the simplest machine possible, (20+4)

O2B.2-3 Greg Peifer, SHINE: A commercial approach to solving the big challenges with nuclear technology, (20+4)

O2B.2-4 David Kingham, A faster route to fusion power: The high field spherical tokamak with high temperature superconducting magnets, (20+4)

O2B.2-5 Thomas McGuire, Overview of the Lockheed-Martin compact fusion reactor (CFR) project, (20+4)

Tritium Fuel Cycle (5 x 20+4)

O2B.3-1 Anita Poore, Hydrogen isotope separation at the Savannah River Site: 25 years of reliable operation using the thermal cycling absorption process, (20+4)

O2B.3-2 Mathew Sharpe, Permeation rate of deuterium and tritium through iron-chromium-aluminum alloys, (20+4)

O2B.3-3 Dave Coombs, Interim H3AT: Experiments in support of the new tritium facility at UKAEA, (20+4)

O2B.3-4 Robert Vale, The accuracy of selected soft waste, tritium measurement techniques, and experimental approach, (20+4)

O2B.3-5 Kiplin Neikirk, A history of all metal vacuum scroll pump development at the Savannah River Site, (20+4)

Plasma/Enabling Tech (5 x 20+4)

O2C.1-1 Seokho Kim, Tokamak water cooling system of ITER, (20+4)

O2C.1-2 Ajesh Palliwar, Mechanical design of 3 MW / CW ITER test ICRF, (20+4)

O2C.1-3 Zachary Wolfe, Support design and analysis of the ITER ECH/CD transmission line system, (20+4)

O2C.1-4 Trey Gebhardt, Pellet injection for disruption mitigation, (20+4)

O2C.1-5 Victor Bykov, EM analysis of W7X components during fast plasma current decay, (20+4)

Fusion Enterprise (4 x 20+4) + panel discussion

O2C.2-1 Derek Sutherland, Research and development needs of sustained spheromak configuration for fusion energy applications, (20+4)

O2C.2-2 Ross Radel, Phoenix – transforming nuclear technology, (20+4)

O2C.2-3 Ales Necas, Overview and recent achievements in the C-2W field reversed configuration experiment and simulation, (20+4)

O2C.2-4 Michl Binderbauer, Fusion via advanced beam-driven FRC's, (20+4)

Panel discussion**Nuclear Analysis and Validation (5 x 20+4)**

O2C.3-1 Tim Eade, Increasing the efficiency of particle transport modeling and shutdown dose rate calculations, (20+4)

O2C.3-2 Pengcheng Long, Intelligent nuclear design with Super MC, (20+4)

O2C.3-3 Ander Gray, Validation of neutronics simulations with inconsistent experimental data, (20+4)

O2C.3-4 Marco Fabbri, Overview of ITER neutronics activities in Europe, (20+4)

O2C.3-5 Rosaria Villari, Experimental evaluation of shutdown dose rate computational tools at JET tokamak in DD experiments, (20+4)

WEDNESDAY

8:00 AM Emerald
 P3-1 Masaya Hanada, QST, **JT-60SA Towards First Plasma** (30+5)
 P3-2 Yuntao Song, ASIPP, **CFETR Integrated Engineering Design** (30+5)
 P3-3 Leo Buhler, KIT, **Liquid Metals** (30+5)

10:00 AM break

10:20 AM Emerald
 Salon 1 Salon 2 Salon 3
 O3A.1 Nuclear Analysis and Validation (5 x 20+4)
 O3A.2 Tritium Fuel Cycle (5 x 20+4)
 O3A.3 Materials and Advanced Manufacturing (5 x 20+4)

12:20 PM Lunch

1:30 PM Emerald
 Salon 1 Salon 2 Salon 3
 O3B.1 Plasma Materials Interactions (5 x 20+4)
 O3B.2 Tritium Fuel Cycle (5 x 20+4)
 O3B.3 Plasma & Enabling Tech (5 x 20+4)

3:30 PM break

3:50 PM Emerald
 Salon 1 Salon 2 Salon 3
 O3C.1 Plasma/Enabling Tech (3 x 20+4)
 O3C.2 Materials and Advanced Manufacturing (3 x 20+4)
 O3C.3 Community Process for a Fusion Strategic Plan

4:50 PM
 6:30 PM
 Banquet
 9:30 PM

P3 – Plenary, Wednesday
 O3A – Oral, Wednesday morning
 O3B – Oral, Wednesday early afternoon
 O3C – Oral, Wednesday late afternoon

Nuclear Analysis and Validation (5 x 20+4)

- O3A.1-1 Igor Lengar**, Characterization of the neutron field with JET torus MCNP models, (20+4)
- O3A.1-2 Arkady Serikov**, Neutronics analysis of diagnostics inside the ITER equatorial port, (20+4)
- O3A.1-3 Rafael Juarez**, ITER neutronics modeling with D1S-UNED code for shutdown dose rate, (20+4)
- O3A.1-4 Gabriel Pedroche**, E-lite: A first 360 model of the ITER tokamak for comprehensive nuclear analysis, (20+4)
- O3A.1-5 Yuefeng Qui**, Neutronics of the IFMIF-DONES test systems – challenges and recent progress

Tritium Fuel Cycle (5 x 20+4)

- O3A.2-1 Chase Taylor**, Conceptual design for the blanket tritium extraction test stand, (20+4)
- O3A.2-2 Victoria Hypes**, Uranium beds design parameters for tritium plants supporting fusion reactors, (20+4)
- O3A.2-3 Larry Baylor**, Issues with formation of cryogenic pellets for fusion applications, (20+4)
- O3A.2-4 George Larsen**, In-situ decontamination of ion chambers using LED, (20+4)
- O3A.2-5 Xin Xiao**, Advanced isotope separation technology for fusion fuel, (20+4)

Materials and Advanced Manufacturing (5 x 20+4)

- O3A.3-1 Yutai Kato**, Additive manufacturing for fusion plasma facing components, (20+4)
- O3A.3-2 Jason Trelewicz**, Enabling additively manufactured tungsten alloys for plasma facing components, (20+4)
- O3A.3-3 Andrew Seltzman**, Advanced manufacturing of a high field side lower hybrid waveguide multi-junction from GR-Cop 84 copper alloy, (20+4)
- O3A.3-4 Yican Wu**, Progress on fusion neutron source development at INEST, (20+4)
- O3A.3-5 Ross Radel**, Phoenix high yield neutron source for near-term material testing, (20+4)

Plasma Material Interaction (1 x 30+5, 3 x 20+4)

O3B.1-1 Phillip Ferguson, Status of the Material Plasma Exposure Experiment, (30+5)

O3B.1-2 Arnold Lumsdaine, Analysis of Design Alternatives of Actively Cooled RF Windows for MPEX, (20+4)

O3B.1-3 Congyi Li, Comprehensive investigation of helium desorption behavior in tungsten by integrated experiments and simulation, (20+4)

O3B.1-4 William Searight, Design and testing of a hot hydrogen test loop for plasma material evolution (20+4)

Tritium Fuel Cycle (5 x 20+4)

O3B.2-1 Bernice Rogers, Stuck in the Middle: Tokamak Exhaust processing system performance and interface requirements, (20+4)

O3B.2-2 James Becnel, ITER tokamak exhaust processing system, theoretical ammonia processing in palladium membrane reactor, (20+4)

O3B.2-3 Kacie Breeding, Effects of impurities on hydrogen isotope permeation in group V metals and alloys, (20+4)

O3B.2-4 Robert White, Impact of off-site tritium hazard evaluations on the design and regulation of commercial tokamak DT fusion devices

O3B.2-5 Brady Gall, Sealed source in-situ tritium process for dense plasma focus fusion in subterranean environments, (20+4)

Plasma/Enabling Tech (1 x 30+5, 3 x 20+4)

O3B.3-1 Guoqiang Li, Optimization of CFETR physics design, (30+5)

O3B.3-2 Yong Cheng, Overall introduction of CFETR remote maintenance test facility, (20+4)

O3B.3-3 Takanori Murase, Electromagnetic and structural analysis for the vacuum vessel of CFQS quasi-axisymmetric stellarator, (20+4)

O3B.3-4 Greg Wallace, Multi-physics simulations of a steady state lower hybrid current drive antenna for the FNSF, (20+4)

Plasma/Enabling Tech (3 x 20+4)

O3C.1-1 Jon Menard, Configuration studies for a fusion innovation integrated experiment, (20+4)

O3C.1-2 Massimo Zucchetti, Design of experimental reactors for advanced nuclear fusion, (20+4)

O3C.1-3 Charles Kessel, Compactness of Fusion Nuclear Devices, (20+4)

Material & Advanced Manufacturing (3 x 20+4)

O3C.2-1 Steven Reynolds, Thermal stability testing of LANA.75, (20+4)

O3C.2-2 David Senor, Understanding the microstructural evolution of lithium ceramics, (20+4)

O3C.2-3 Frank Schoofs, Joining, manufacturing and testing tungsten at UKAEA, (20+4)

Community Process for a Fusion Strategic Plan

O3C.3-1 Lauren Garrison, Highlights of the fusion, plasma and technology community planning process, (20+4)

THURSDAY

8:00 AM




Emerald

- P4-1 Matteo Barbarino, IAEA, **IAEA Global Fusion Activities** (30+5)
- P4-2 Yasutomo Ishii, QST, **JA DEMO Design and R&D** (30+5)
- P4-3 Brian Egle, ORNL, **Fusion Prototypic Neutron Source** (30+5)

10:00 AM break

10:20 AM




Emerald
Salon 1 Salon 2 Salon 3

- O4A.1 Liquid Metals (5 x 20+4)
- O4A.2. Nuclear Analysis and Validation (4 x 20+4)
- O4A.3 Blanket Design (4 x 20+4)

12:20 PM Lunch

1:30 PM



Emerald
Salon 1 Salon 2 Salon 3

- O4B.1 Magnets (6 x 20+4)
- O4B.2 Liquid Metals (6 x 20+4)
- O4B.3 Plasma Facing Components, High Heat Flux, Divertor and First Wall (6 x 20+4)

3:30 PM break

3:50 PM



Emerald
Salon 1 Salon 2 Salon 3

Presently not used

5:50 PM

P4 – Plenary, Thursday
 O4A – Oral, Thursday morning
 O4B – Oral, Thursday early afternoon
 O4C – Oral, Thursday late afternoon

Liquid Metals (5 x 20+4)

O4A.1-1 Chiara Mistrangelo, Influence of magneto-convection on the flow in DCLL blankets, (20+4)

O4A.1-2 Yuchen Jiang, Modeling PbLi flow in a thermal convection corrosion loop, (20+4)

O4A.1-3 Tyler Rhodes, Numerical investigation of 3D magnetohydrodynamic pressure drop across contractions, (20+4)

O4A.1-4 Nouf Al-Mousa, Characterizing materials undergoing simultaneous liquid lead corrosion and irradiation, (20+4)

O4A.1-5 Marco Utili, Tritium handling in the lithium lead breeder of DEMO reactor, (20+4)

Nuclear Analysis and Validation (4 x 20+4)

O4A.2-1 Shen Qu, Neutronics effects study on homogeneous solid breeder blanket, (20+4)

O4A.2-2 Tim Bohm, Neutronics calculations to support the fusion evaluated Nuclear Data Library (FENDL), (20+4)

O4A.2-3 Gabriel Pedroche, Validity of one-step methodology to compute shutdown dose rate in areas of ITER tokamak exposed to high neutron fluences, (20+4)

O4A.2-4 Mitsutaka Isobe, Recent advances in LHD deuterium experiment with emphasis on fusion neutron production and its measurement, (20+4)

Blanket Design (5 x 20+4)

O4A.3-1 Zaixin Li, Progress in design activities related to the helium cooled breeding blanket for CFETR, (20+4)

O4A.3-2 Songlin Liu, Thermo-mechanics of WCCB for CFETR, (20+4)

O4A.3-3 Lei Chen, Progress on design activities related to WCCB for CFETR, (20+4)

O4A.3-4 Guangyon Sun, Blanket nuclear design, (20+4)

Magnets (6 x 20+4)

- O4B.1-1. Robert Duckworth**, Development of high field magnets for future fusion devices, (20+4)
- O4B.1-2 Nagato Yanagi**, Development of high current density HTS magnet for the helical fusion reactor and next-generation helical device, (20+4)
- O4B.1-3 Roberto Bonifetto**, Thermohydraulic analysis of the ITER CS magnet mockup tests and calibration of the 4C model, (20+4)
- O4B.1-4 David Larbalestier**, REBCO coated conductors for magnets, (20+4)
- O4B.1-5 Seungyong Hahn**, Recent progress in no-insulation high temperature superconducting magnet technology, (20+4)
- O4B.1-6 Chirag Rana**, Concept design and analysis of the magnet system of the sustained high power density tokamak facility, (20+4)

Liquid Metals (6 x 20+4)

- O4B.2-1 Francesco Volpe**, Curved, flowing meter-long liquid metal walls and ceilings controlled by electromagnetic and centrifugal forces, (20+4)
- O4B.2-2 Yoshi Hirooka**, A review of enhanced heat and particle transport in liquid metals by $J \times B$ forced convection, (20+4)
- O4B.2-3 Daniel Andruczyk**, Current results on liquid metal research at the University of Illinois, (20+4)
- O4B.2-4 Naomi Mburu**, Measuring the depth of a thin-film liquid metal flow, (20+4)
- O4B.2-5 Andrei Khodak**, Numerical modeling for flowing liquid lithium in 3D printed divertor heat shields, (20+4)
- O4B.2-6 Mofreh Zaghloul**, Equation-of-State, Thermodynamic Properties, and Shock Hugoniot for Lithium Surfaces Proposed for Inertial Fusion Concepts , (20+4)

Plasma Facing Components, High Heat Flux, Divertor and First Wall (6 x 20+4)

O4B.3-1 Jean Boscary, Lessons learned from the design and production of the W7X water-cooled divertors, (20+4)

O4B.3-2 Dominique Guihelm, W emissivity and surface temperature in ITER, (20+4)

O4B.3-3 Monica Gehrig, CFD simulations of helium flow loop test section, (20+4)

O4B.3-4 David Donovan, Utilization of eroding thermocouples in the small angle slot divertor of DIII-D for assessment of heat flux and plasma detachment, (20+4)

O4B.3-5 Ezekial Unterburg, Determining the poloidal distribution W sourcing by light impurities and heating method in the fully W PFC in WEST, (20+4)

O4B.3-6 Daheng Li, Numerical simulation of single-phase flow and heat transfer in the middle of a single tube with blockage, (20+4)