

Third Tritium school - Agenda

18-22 March, 2024

On-site and online meeting; communication details communicated in due time

Time in the agenda is in Central European Time!

Monday, 18th March		Tuesday, 19th March		Wednesday, 20th March		Thursday, 21st March		Friday, 22st March
Tritium management & detection		Tritium tritium migration, transport, waste		Tritium tritium migration, transport, detection		Radiotoxicity/ Ecotoxicity		
8:30h	Registration	9:00h	Connecting	09:00	Connecting	09:00	Connecting	V i s i t t o I T E R
09:30	Welcome - E. Bernard	09:10	L7 D'Amico	09:10	L14 Matveev	09:10	L22 Wakeford	
10:00	L1 Klein/Larsen	10:00	L8 Utili	10:00	L15 Schmid	10:00	L23 Lebaron-Jacobs	
10:50	Coffee (20 min)	10:50	Coffee (20 min)	10:50	Coffee (20 min)	10:50	Coffee (20 min)	
11:10	L2 Gilardi	11:10	L9 Di Fonzo	11:10	L16 Grisolia	11:10	L24 Paquet	
12:00	L3 Moreno	12:00	L10 Liger	12:00	L17 Carella	12:00	L25 Blanchardon	
12:50	Lunch (70 min)	12:50	Lunch (120 min)	12:50	Lunch (70 min)	12:35	Lunch (85 min)	
14:00	L4 Shmayda	14:50	L11 Coombs	14:00	L18 Staniec	14:00	L26 Jha	
14:50	L5 Demange	15:40	L12 Mandoki	14:50	L19 Widdowson	14:50	L27 Baiocco	
15:40	Coffee (20 min)	16:30	Coffee (20 min)	15:40	Coffee (20 min)	15:40	Coffee (20 min)	
16:00	L6 Day	16:50	L13 Dylst	16:00	L20 Hatano	16:00	L28 Larese-Filon	
16:50	Discussion	17:40	Discussion	16:35	L21 Bultel	16:50	Discussion	
				17:10	Discussion			
		19:30h	Tritium School Dinner					



Day 1: Monday 18th March

8:00-9:30	Registration	
9:30-10:00	Welcome – Elodie Bernard (CEA)- TITANS coordinator	
Session 1	Topic: Tritium migration, management	Chair: Thierry Gilardi
10:00-10:50 (50 min)	L1 - Tritium Process Technology for Fusion Fuel Cycles	James Klein & George Larsen (SRNL, US)
10:50-11:10	<i>Coffee Break</i>	
Session 2	Topic: Tritium migration, management	Chair: Christian Grisolia
11:10-12:00 (50 min)	L2 - Assessment of tritium and hydrogen transfers in new generation fission reactors	Thierry Gilardi (CEA, France)
12:00-12:50 (50 min)	L3 - Tritium circuit	Carlos Moreno (CIEMAT, Spain)
12:50-14:00	<i>Lunch break</i>	
Session 3	Topic: Tritium migration, management	Chair: Carlos Moreno
14:00-14:50 (50 min)	L4 - The fundamentals of tritium handling	Walter Shmayda (Tritium Solutions Inc., US)
14:50-15:40 (50 min)	L5 - ITER tritium plant	David Demange (ITER)
15:40-16:00	<i>Coffee Break</i>	
Session 4	Topic: Tritium migration, management	Chair: James Klein
16:00-16:50 (50 min)	L6 - <i>The tritium fuel cycle in a fusion power plant</i>	Christian Day (KIT, Germany)
16:50-17:20 (30 min)	<i>Discussion</i>	Chair: Christian Grisolia / Walter Shmayda



Day 2: Tuesday 19th March

9:00 - 9:10	Connecting	
Session 8	Topic: Tritium management, transport	Chair: Christian Grisolia
9:10-10:00 (50 min)	L7 - Tritium Processing in Breeding Blankets and Test Blanket Systems in DEMO	Salvatore D'Amico (EUROfusion)
10:00-10:50 (50 min)	L8 - <i>Tritium management in Water-Cooled Lithium-Lead breeding blanket for the EUROPEAN DEMO Reactor</i>	Marco Utili (ENEA, Italy)
10:50-11:10	Coffee Break	
Session 9	Topic: Tritium and waste management	Chair: Ion Cristescu
11:10-12:00 (50 min)	L9 - Antipermeation coatings for nuclear environments	Fabio Di Fonzo (X-nano, Italy)
12:00-12:50 (50 min)	L10 - State-of-the-art review of detritiation treatments applicable to metallic tritiated waste	Karine Liger (CEA, France)
12:50-14:50	Lunch break	
Session 10	Topic: Waste management	Chair: Karine Liger
14:50-15:40 (50 min)	L11 - Hard waste detritiation systems	Dave Coombs (UKAEA, UK)
15:40-16:30 (50 min)	L12 - Tritiated radwaste management in France : Status and perspectives	Robert Mandoki (ANDRA, France)
16:30-16:50	Coffee Break	
Session 11	Topic: Waste management	Chair: Kris Dylst
16:50-17:40 (50 min)	L13 - Learnings from dismantling an obsolete tritium installation and decommissioning tritium laboratories	Kris Dylst (SCK-CEN, Belgium)
17:40-18:10 (30 min)	Discussion	Chair: Marco Utili / Karine Liger
19:30	Tritium School Dinner	



Day 3: Wednesday 20th March

8:00 - 9:00	Registration	
9:00 - 9:10	Connecting	
Session 4	Topic: Tritium migration, transport	Chair: Sabina Markelj
9:10-10:00 (50 min)	L14 - <i>Plasma wall interaction in fusion devices and its relevance for tritium fuel cycle</i>	Dmitry Matveev (FZJ, Germany)
10:00-10:50 (50 min)	L15 - Tritium in plasma facing components in fusion devices: retention and transport	Klaus Schmid (IPP, Germany)
10:50-11:10	Coffee Break	
Session 5	Topic: Tritium management	Chair: Elodie Bernard
11:10-12:00 (50 min)	L16 - Tritiated Dust: their impact on tokamak operation	Christian Grisolia (CEA, France)
12:00-12:50 (50 min)	L17 - Corrosion of materials in fusion and fission reactors	Elisabetta Carella (CIEMAT, Spain)
12:50-14:00	Lunch break	
Session 6	Topic: Tritium migration, management	Chair: Christian Grisolia
14:00-14:50 (50 min)	L18 - Active Gas Handling System supporting JET for the DTE2 and DTE3 campaigns	Paul Staniec (UKAEA, UK)
14:50-15:40 (50 min)	L19 - Tritium retention in JET	Anna Widdowson (UKAEA, UK)
15:40-16:00	Coffee Break	
Session 7	Topic: Tritium detection	Chair: Marco Utili
16:00-16:35 (35 min)	L20 - Non-destructive tritium measurement in solids	Yuji Hatano (Toyama univ., Japan)
16:35-17:10 (35 min)	L21 - <i>Lis as an in-situ diagnostic in fusion devices</i>	Arnaud Bultel (Coria, France)
17:10-17:40 (30 min)	Discussion	Chair: Sabina Markelj / Christian Grisolia



Day 4: Thursday 21th March

9:00 - 9:10	Connecting	
Session 10	Topic: Epidemiology and dosimetry of tritium	Chair: Veronique Malard
9:10-10:00 (50 min)	L22 - <i>Epidemiological studies of tritium exposure</i>	Richard Wakeford (Univ. Manchester, UK)
10:00-10:50 (50 min)	L23 - Human exposure to tritium: biokinetic models and biological effects	Laurence Lebaron-Jacobs (CEA, France)
10:50-11:10	Coffee Break	
Session 9	Topic: Epidemiology and dosimetry of tritium	Chair: Awadhesh Jha
11:10-12:00 (50 min)	L24 - Dosimetry of tritium in humans and non-human biota	Francois Paquet (IRSN, France)
12:00-12:35 (35min)	L25 - Biokinetic models for tritium	Eric Blanchardon (IRSN, France)
12:35-14:00	Lunch break	
Session 10	Topic: Ecotoxicity of tritium and modelling approaches	Chair: Laurence Lebaron-Jacobs
14:00-14:50 (50 min)	L26 - Impact of T on aquatic environment	Awadhesh Jha (Univ. Plymouth, UK)
14:50-15:40 (50 min)	L27 - Modeling approaches and biological data analysis at the subcellular/cell population scales	Giorgio Baiocco (UNIPV, Italy)
15:40-16:00	Coffee Break	
Session 11	Topic: Ecotoxicity modelling approaches	Chair: Giorgio Baiocco
16:00-16:50 (50 min)	L28 - Skin absorption of tritium after contamination from tritiated water and tritiated powders	Francesca Larese-Filon (UNITS, Italy)
16:50-17:20 (30 min)	Discussion	Chair: Veronique Malard / Awadhesh Jha

