

## Second Tritium school - Agenda

14-18 June, 2021

Online meeting communication details communicated in due time  
Time in the agenda is in Central European Time!

### Day 1: Monday 14<sup>th</sup> June

<b>12:30 - 13:00</b>	<b>Welcome by Transat coordinator and video about Marseille</b>	
Session 1	Topic: tritium migration, management	Chair : Christian Grisolia
13:00-13:50 (50 min)	L1 - The fundamentals of tritium handling	Walter Shmayda (Univ. Rochester, US)
13:50-14:40 (50 min)	L2 - Assessment of tritium and hydrogen transfers in new generation fission reactors	Thierry Gilardi (CEA, France)
<b>14:40-15:00</b>	<b>Coffee Break</b>	
Session 2	Topic: tritium migration, management	Chair : Carlos Moreno
15:00-15:50 (50 min)	L3 - Tritium Process Technology for Fusion Fuel Cycles	James Klein & George Larsen (SRNL, US)
15:50-16:40 (50 min)	L4 - ITER and Tritium	Scott Willms (ITER)
<b>16:40-17:00</b>	<b>Coffee Break</b>	
Session 3	Topic: tritium migration, management	Chair : Thierry Gilardi
17:00-17:35 (35 min)	L5 - Tritium circuit	Carlos Moreno (CIEMAT, Spain)
17:35-18:10 (35 min)	L6 - Tritiated dust in fusion reactors	Christian Grisolia (CEA, France)
<b>18:10-18:40 (30 min)</b>	<b>Discussion</b>	<b>Chair:</b> Christian Grisolia / Walter Shmayda

Duration of presentations: talk + discussion

40 + 10 min

30 + 5 min

## Day 2: Tuesday, 15<sup>th</sup> June

<b>12:30 - 13:00</b>	<b>Connecting</b>	
Session 4	Topic: tritium migration, transport	Chair : Sabina Markelj
13:00-13:50 (50 min)	L7 - Nuclear fusion, wall loading and materials: on the difficult life of a material close to a thermonuclear plasma	Greg de Temmerman (Zenon, France)
13:50-14:40 (50 min)	L8 - Tritium in plasma facing components in fusion devices: retention and transport	Klaus Schmid (IPP, Germany)
<b>14:40-15:00</b>	<b>Coffee Break</b>	
Session 5	Topic: tritium detection	Chair : Klaus Schmid
15:00-15:35 (35 min)	L9 - Non-destructive tritium measurement in solids using beta-ray induced x-ray spectrometry (BIXS)	Yuji Hatano (Toyama univ., Japan)
15:35-16:10 (35 min)	L10 - Tritium detection methods developed during TRANSAT project	Pascal Fichet, Arnaud Bultel & Sabina Markelj (CEA / Coria, France & JSI, Slovenia )
16:10-16:45 (35 min)	<i>L11 - Tritium analysis of JET plasma facing materials</i>	Anna Widdowson (UKAEA, UK)
<b>16:45-17:05</b>	<b>Coffee Break</b>	
Session 6	Topic: tritium detection, waste	Chair : Anna Widdowson
17:05-17:40 (35 min)	L12 - Preparation for DT campaign in JET	Ben Wakeling (UKAEA, UK)
17:40-18:15 (35 min)	L13 - Solid Waste Detritiation	Dave Coombs (UKAEA, UK)
<b>18:15-18:45 (30 min)</b>	<b>Discussion</b>	<b>Chair: Sabina Markelj / Christian Grisolia</b>

Duration of presentations: talk + discussion

40 + 10 min

30 + 5 min

## Day 3: Wednesday, 16<sup>th</sup> June

<b>12:30 - 13:00</b>	<b>Connecting</b>	
Session 7	Topic: tritium migration, management	Chair : Marco Utili
13:00-13:50 (50 min)	L14 - Tritium Processing in Breeding Blankets and Test Blanket Systems in DEMO	Alessandro Spagnuolo (EUROfusion)
13:50-14:40 (50 min)	L15 - From plasma facing components to radioactive dust: A study on the behaviour of tritiated dust in fusion reactors	Samuel Peillon (IRSN, France)
<b>14:40-15:00</b>	<b>Coffee Break</b>	
Session 8	Topic: tritium waste	Chair : Dave Coombs
15:00-15:35 (35 min)	L16 - General principles and examples of decommissioning of a facility containing tritium	Aurelie Lis (CEA, France)
15:35-16:10 (35 min)	<i>L17 - Overview of detritiation processes for solid tritiated softhousekeeping waste</i>	Karine Liger (CEA, France)
16:10-16:45 (35 min)	<i>L18 - Learnings from dismantling an obsolete tritium installation and decommissioning tritium laboratories</i>	Kris Dylst (SCK-CEN, Belgium)
<b>16:45-17:05</b>	<b>Coffee Break</b>	
Session 9	Topic: tritium migration, management	Chair : Karine Liger
17:05-17:40 (35 min)	L19 - Tritium breeding blankets for DEMO - Water Cooled Lithium Lead	Marco Utili (ENEA, Italy)
17:40-18:15 (35 min)	L20 - T <sub>2</sub> antipermeation coatings beyond chemical formulas: the key role of microstructure and deposition method	Fabio Di Fonzo (IIT, Italy)
<b>18:15-18:45 (30 min)</b>	<b>Discussion</b>	<b>Chair:</b> Marco Utili / Karine Liger

Duration of presentations: talk + discussion

40 + 10 min

30 + 5 min

## Day 4: Thursday 17<sup>th</sup> June

<b>12:30 - 13:00</b>	<b>Connecting</b>	
Session 10	Topic: Radiotoxicity/ecotoxicity	Chair : Veronique Malard
13:00-13:50 (50 min)	L21 - Human exposure to tritium: biokinetic models and health effects – UNSCEAR report	Laurence Lebaron-Jacobs (CEA, France)
13:50-14:40 (50 min)	L22 - The VATO project: development and validation of a dynamic Transfer model of tritium in a grassland ecosystem	Severine Le Dizès (IRSN, France)
<b>14:40-15:00</b>	<b>Coffee Break</b>	
Session 11	Topic: Epidemiology of tritium and ecotoxicity	Chair : Awadhesh Jha
15:00-15:50 (50 min)	L23 - Epidemiological studies of tritium exposure	Richard Wakeford (Univ. Manchester, UK)
15:50-16:40 (50 min)	<i>L24 - The ecotoxicology of tritium: effects on fish using several endpoints, from molecule to individual responses – comparison to gamma radiation</i>	Beatrice Gagnaire (IRSN, France)
<b>16:40-17:00</b>	<b>Coffee Break</b>	
Session 12	Topic: Tritium dosimetry	Chair : Giorgio Baiocco
17:00-17:50 (50 min)	L25 - Dosimetry of tritium in humans and non-human biota	Francois Paquet (IRSN, France)
<b>17:50-18:30 (30 min)</b>	<b>Discussion</b>	
		<b>Chair:</b> Veronique Malard / Awadhesh Jha

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40 + 10 min

30 + 5 min

**Day 5: Friday, 18<sup>th</sup> June**

<b>12:30 - 13:00</b>	<b>Connecting</b>	
Session 13	Topic: Radiotoxicity and dosimetry of tritium	Chair : Ion Cristescu
13:00-13:50 (50 min)	L26 - Impact of T on aquatic environment	Awadhesh Jha (Univ. Plymouth, UK)
13:50-14:40 (50 min)	L27 - Tritium dosimetry: Modeling approaches at the sub-cellular scale	Giorgio Baiocco (UNIPV, Italy)
<b>14:40-15:00</b>	<b>Coffee Break</b>	
Session 14	Topic: Tritium waste, management	Chair : Robert Vale
15:00-15:50 (50 min)	L28 - French National Agency for Radioactive Waste Management	Robert Mandoki (ANDRA, France)
<b>15:50-16:20 (30 min)</b>	<b>Discussion</b>	<b>Chair:</b> Christian Grisolia / Sabina Markelj
<b>16:20-16:30</b>	<b>Goodbye</b>	<b>Thierry Orsiere / Christian Grisolia</b>

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