

Programme

17-19 juin 2026



ATD3 Workshop 2026

Toulouse - Cité de l'Espace, Accueil
Altair meeting room

Table des matières

1 mer. 17 juin

Registration	1
ATD3 Workshop Opening: Welcome and Opening Speeches	1
Numerical modelling and validation of destructive re-entry	1
Coffee & Networking Break	1
ATD3 Workshop 2026 Group Photo	1
Numerical modelling and validation of destructive re-entry	1
Broad Scope Abstracts	2

3 jeu. 18 juin

Coffee & Networking	3
Ablation and material response	3
Coffee & Networking Break	3
Ablation and material response	3
CNES aerothermodynamics Activities Overview	4
Lunch Break	4
Material characterization for re-entry applications	4
Coffee & Networking Break	4
Experimental capabilities and ground testing	5
Social Event: Dinner	5

6 ven. 19 juin

Coffee & Networking	6
Fragmentation modelling	6
Coffee & Networking	6
Fragmentation modelling	6
Discussion on the Update of the DIVE Guidelines: Feedback Collection	7
Revisiting the VKI Free-Flying Ring Test Case	7
HIC SVNT DRACONES - re-enter with the dragon	7
Workshop Closure	7
Technical visit: Free visit of La Cité de l'Espace	7

mer. 17 juin

13:20

Registration

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

14:00

ATD3 Workshop Opening: Welcome and Opening Speeches

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

14:15

14:15

Numerical modelling and validation of destructive re-entry

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

14:15 - 14:33

Tree-Based Surrogate Modelling of Aerothermochemistry for Space Debris Reentry

Orateur

Jeanne Longlune

14:33 - 14:51

Anisotropic mesh adaptation for hypersonic reactive flows.

Orateur

Valentin GOLLIET

14:51 - 15:09

On Debris Aerodynamic Stability and its Prediction

Orateur

Alexey KLIMKO

15:09 - 15:27

BLAZE project: Improving Re-Entry Predictions Through Cross-Validated Modelling

Orateur

Bayrem Zitouni

15:27 - 15:45

Risk Requirements Verification Methods and Models for Spacecraft Re-entry: DIVE Update, Explosion and Ablation Modelling

Orateurs

Anca-Maria Stan, Andreea Sabau, Federico Bariselli, Marco Fossati, Valentin Ledermann

15:50

15:50

Coffee & Networking Break

Pause | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

16:10

16:10

ATD3 Workshop 2026 Group Photo

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

16:15

16:20

Numerical modelling and validation of destructive re-entry

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

16:20 - 16:38

Reachable Set Propagation for Space Debris Re-Entry

Orateur
Tommy Williamson

16:38 - 16:56

High-Fidelity Coupled Flow-Structure Simulation of the early Reentry Phase of the Satellite Eu:CROPIS

Orateur
Lukas Lemaitre

17:00

17:00

Broad Scope Abstracts

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

17:00 - 17:18

The Future Launchers Preparatory Programme's Aerothermodynamics and Demisability activities

Orateur
David Riley

17:18 - 17:36

Assessment and Mitigation of Ground Casualty Risks from Space Activities

Orateur
Grégoire LAUR

17:40

jeu. 18 juin

08:30

Coffee & Networking

Pause | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

09:00

Ablation and material response

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

09:00 - 09:18

Eliminating B' Tables: Time-Accurate Explicit Coupling in PATO for Hypersonic Solvers

Orateur

Gabriel Merlaud

09:18 - 09:36

Multi-scale stochastic modeling of porous ablators

Orateur

Savio Poovathingal

09:36 - 09:54

Quantification of stratospheric solid aerosols injection by global rocket launch and spacecraft re-entry

Orateur

Quentin Taupin

09:54 - 10:12

Investigations of High-Temperature Oxygen-Carbon Ablation by Molecular Beam-Surface Scattering

Orateur

Timothy Minton

10:12 - 10:30

From Molecular Beam Studies to Aerodynamics: Development of a Gas-Surface Scattering Model for LEO/VLEO

Orateur

Pedro Jorge

10:30

Coffee & Networking Break

Pause | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

10:50

Ablation and material response

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

10:50 - 11:08

Assessment of Particle Formation During Re-entry of Spacecraft

Orateur

Dominik Kuentler

11:08 - 11:26

Finite-Rate Ablation and Oxide-Layer Models for Reentry Spacecraft

10:50

12:25	<p>Orateur Tom Schwartzentruber</p>
12:25	<p>11:26 - 11:44 Modeling Spacecraft Demise Using the KATS Multi-Physics Framework</p> <p>Orateur Alexandre Martin</p>
12:45	<p>11:44 - 12:02 Developing a Pyrolysis Gas Thermal Blocking Model for Reentry Demise</p> <p>Orateur Benton Greene</p>
12:45	<p>12:02 - 12:20 Thermal and mechanical responses of a pyrolyzable heat shield subjected to ablation and deformation</p> <p>Orateur Céline Baranger</p>
14:30	<p>CNES aerothermodynamics Activities Overview Session Site: Toulouse - Cité de l'Espace, Accueil, Altair meeting room</p>
14:30	<p>Lunch Break Pause Site: ESTEC Restaurant</p>
15:30	<p>Material characterization for re-entry applications Session Site: Toulouse - Cité de l'Espace, Accueil, Altair meeting room</p>
15:30	<p>14:30 - 14:48 Thermochemical study of Ti-6Al-4V alloy for material characterisation during atmospheric re-entry</p> <p>Orateur Ella Barakhovskaia</p>
16:00	<p>14:48 - 15:06 Introduction of innovative material solutions for demisable propellant tanks during atmospheric reentry</p> <p>Orateur Benoit Fer</p>
	<p>15:06 - 15:24 T4D - Mechanical and energetic characterization of DLP printed thermite</p> <p>Orateur Carlo Zanardi</p>
	<p>Coffee & Networking Break Pause Site: Toulouse - Cité de l'Espace, Accueil, Altair meeting room</p>

16:00

Experimental capabilities and ground testing

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altair meeting room

16:00 - 16:18

Demise Experiment on the Upcoming KREPE 3 atmospheric re-entry mission

Orateur

Alexandre Martin

16:18 - 16:36

Preparing DRACO for Re-entry: VKI's Integrated Design, Testing, and Material Demise Assessment

Orateur

Bernd Helber

16:36 - 16:54

Space debris testing methodology in Plasma Wind tunnel for D4D tools validation

Orateur

Olivier Chazot

16:54 - 17:12

KLARA: AN ARIANEGROUP-CNES INITIATIVE FOR MONITORING SATELLITE FRAGMENTATION.

Orateur

gregory pinaud

17:12 - 17:30

Increasing Demise Through Design: Application of Shape Effects

Orateur

Ian Holbrough

17:40

20:00

Social Event: Dinner

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altair meeting room

23:00

ven. 19 juin

08:30

Coffee & Networking

Pause | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

09:00

Fragmentation modelling

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

09:00 - 09:18

ESA-DSMCFED: Development Status and Recent Advances of the SMURFS Re-Entry Fragmentation Code

Orateur

Arnaud Francois

09:18 - 09:36

Explosive Geometric Fragmentation and Collisions During Re-entry

Orateur

Tommy Williamson

09:36 - 09:54

OSMOSE : Optimisation of Structural Morphologies for Operational Safety and End-of-life ; A topology optimization tool coupled to PAMPERO

Orateur

Eddy Constant

09:54 - 10:12

Analytical Analysis of the Re-entry Break-up Altitude Using Dimensional Analysis

Orateur

Clemens Mueller

10:12 - 10:30

Recent Modelling Improvements to the Spacecraft Demise Assessment Tool PAMPERO : PAMPERO HiFi

Orateur

Valentin Ledermann

10:30

10:30

Coffee & Networking

Pause | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

10:50

Fragmentation modelling

Session | **Site:** Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

10:50 - 11:08

Recent Modelling Improvements to the Object Oriented Tool DEBRISK : DEBRISK V4

Orateur

Martin Spel

11:10

11:10

Discussion on the Update of the DIVE Guidelines: Feedback Collection

Session | Site: Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

11:30

Revisiting the VKI Free-Flying Ring Test Case

Session | Site: Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

11:30

11:30 - 11:48

Revisiting the VKI Free-Flying Ring Test Case: A Possible Geometric Explanation for Drag Overprediction in CFD Rebuilding Efforts

Orateur

MARTIN SPEL

11:48

11:48

HIC SVNT DRACONES - re-enter with the dragon

Session | Site: Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

12:06

12:06

Workshop Closure

Session | Site: Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

12:21

12:30

Technical visit: Free visit of La Cité de l'Espace

Session | Site: Toulouse - Cité de l'Espace, Accueil, Altaïr meeting room

17:00