



IC24

Impetus Conference 2024

17th - 19th June. Flekkefjord - Norway

Presenting the latest advancements in the IMPETUS simulation platform, presentations from our users and open technical discussions within the field of computational physics simulation.

Join us at our third international IMPETUS Conference in Flekkefjord for a journey of innovation.

17th - 19th of June, at the SPIRA conference centre.

Since our 2022 conference, we've introduced an ultra-fast CFD solver, new interior ballistics functionality, an improved SPH solver, and enriched GUI features, including a cutting-edge fragmentation tool. Additionally, a new support

platform is now in place, and a host of exciting Objects has been added to the IMPETUS Market. Most importantly, we eagerly await our community's presentations of interesting work and simulation results.

Your participation is key to the success of this exceptional event. Save the date and join us for unforgettable days in Flekkefjord.

Pre-register online
www.impetus.no/IC24



PROGRAMME:

Monday 17th June

18:00 - 23:00 Official reception and registration

Tuesday 18th June

08.00 - 08.30	Registration and Coffee
08.30 - 11.50	Technical programme – IMPETUS only sessions
11.50 - 12.00	Photo session
12.00 - 13.00	Lunch
13.00 - 17.00	Technical programme
18.00 - Late	Networking dinner and social gathering

Wednesday 19th June

08.30 - 12.40	Coffee & Technical programme
12.40 - 13.40	Lunch
13.40 - 17.20	Technical programme. Optional evening activities.

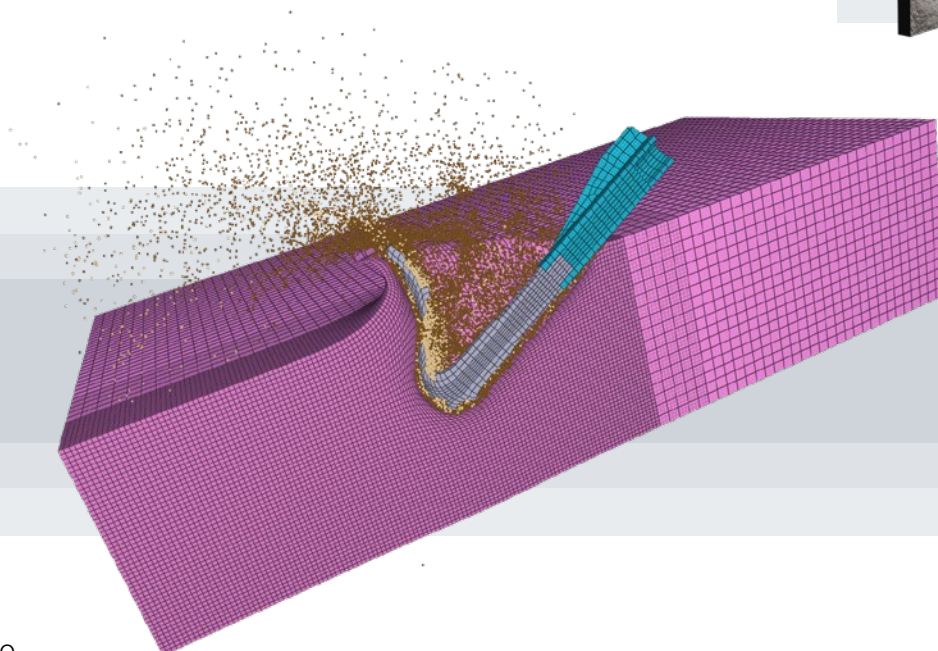
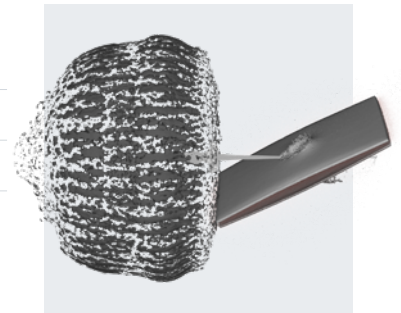
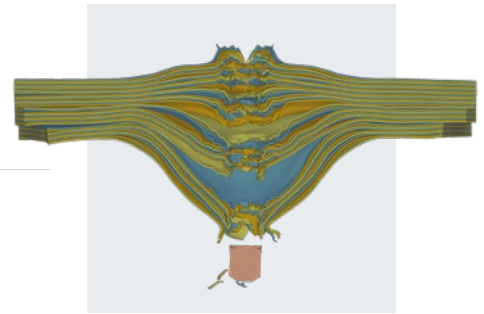
PRICE LIST:

Delegate pass

Three day pass including reception and refreshments	€500.00
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Accommodation

Cabin on board MS Sandnes (per night)	€160.00
Hotel accommodation (per night)	€160.00





Conference venue

The Impetus Conference is held bi-annually at the SPIRA Conference and Culture Centre in Flekkefjord. Boasting state of the art facilities, separate meeting rooms, capacity for over 300 guests and spectacular views of the fjord this is the perfect place for us to gather and share our experience.

SPIRA kultursenter, Elvegaten 1, 4400 Flekkefjord.

IMPETUS Afea AS, Norway - Strandgaten 32, 4400 Flekkefjord, Norway. Tlf: +47 95 72 58 01

conference@impetus.no

Conference Program

17th - 19th June 2024, Flekkefjord – Norway

Monday 17th June 2024 – Börsen, Elvegaten 24, Flekkefjord

18:00	Welcome reception w/registration
18:00	Registration opens
19:00	Bar and buffet Rumen from Svanen bar (number 84 on the list of the world's best bars) is manning the bar. Local food and produce to go. We introduce the Impetus conference beer.
23:00	Closing of reception

Tuesday 18th June 2024 – SPIRA, Elvegaten 1, Flekkefjord

08:00	Registrations & Coffee
08:30-11:50	Session 1: Welcome and presentation of IMPETUS developments Room: Storsalen
08:30	Welcome Arve Grønsund Hanssen (CEO, IMPETUS)
08:50	Engine developments Lars Olovsson (CTO, IMPETUS)
10:00	Coffee break
10:20	GUI developments & V/L tool Harald Vistnes (Software architect, IMPETUS)
11:20	Exploring new business models and opportunities Markus Graswald (VP Business Development, IMPETUS)
11:50	Photo session
12:00	Lunch Served at Grand hotel

13:00-14:15	Session 2: The following session is dedicated to the memory of the late Prof. Dan Pope Room: Storsalen Presented by his colleagues at Dstl. Moderator: Joshua W. Mullings (Senior Engineer, Terminal Effects Simulation Team, Dstl, UK)
13:00	Application of IMPETUS within Dstl Joshua W. Mullins (Senior Engineer, Dstl, UK)
13:25	A comparison of methods for modelling water penetration William Cory-Wright (Modelling & Simulation Engineer, Dstl, UK)
13:50	Optimisation of soil models in IMPETUS for underbelly blast applications Daniel Armstrong (Senior Engineer, Dstl, UK)
14:15	Coffee break
14:35-15:50	Session 3 Room: Storsalen Moderator: Thomas Berger (Head of R&D/Armor Protection Systems, KNDS Germany, Germany)
14:35	An approach to assess occupant injury criteria and seat systems in a blast protected military vehicle Karl-Petter Sjösvärd (CEO, Synergic Survivability, Sweden)
15:00	Full vehicle blast loading and dummy response – IVECO vehicle Michele Denicolo (Simulation Engineer, Iveco Defence Vehicles, Italy)
15:25	Analysis of the Biofidelic-Dummy: Assessing Bone Fracture Accuracy in Simulation <u>Benjamin Härtel</u> , Sandra Beutin, Lars Hannawald (AFUS GmbH, Germany)
15:50	Coffee break (short)
16:00-17:00	Session 4: IMPETUS tutorial session Room: Storsalen
16:00	Tutorial session on SC and ERA - explanation to IMPETUS commands and model set-up methodology Lars Olovsson (CTO, IMPETUS)
17:00	Closing and practical info for the evening
18:00 - late	Social programme – Midsummer evening cruise on veteran ship M/S Sandnes Buffet dinner and drinks mixed with local history and sea shanties. Bring your conference badge. If weather permits, we will sail to Jøssingfjord and learn about the events of February 1940. During our conference, the ship will be based at the quay of Eschebrygga, in walking distance from all activities and other hotels.

Wednesday 19th June 2024 – SPIRA, Elvegaten 1, Flekkefjord

08:30	Coffee
09:00-09:25	Session 5: Day 2 Opening talk Room: Storsalen
09:00	Defence industry outlooks Tom Ivar Stie (FSI, Norwegian Defence and Security Industry Directory, Norway)
09:25-10:40	Session 6 Room: Storsalen Moderator: Tatiana Rigoulet (Scientific Advisor, Saab Bofors Dynamics Switzerland, Switzerland)
09:25	Use of Impetus VAA for full vehicle model Riccardo Scazzosi (Simulation Engineer, Iveco Defence Vehicles, Italy)
09:50	Coupling Adaptive Response Surface based Optimization for Explicit Lagrangian Structural Simulations Raphael Gutser (Technical Expert Warhead Systems, TDW, Germany)
10:15	Current activities on development of sophisticated material models and implementation to Impetus Norman Herzig (CEO/Managing Director, Nordmetall GmbH, Germany)
10:40	Coffee break
11:00-12:40	Session 7 Room: Storsalen Moderator: Samuel Yeap (Energetics & Vulnerability Engineer, Fazer-Nash Consultancy, UK)
11:00	Experimental and Numerical Study on Metallic Foam Sandwich Targets under Ballistic Impact Andreas Klavzar (Researcher, ISL, Germany/France)
11:25	QinetiQ material object collection Phil Church (QinetiQ Senior Fellow, QinetiQ, UK)
11:50	Application of CFD solver for the shielding design of EOD detonation chambers Jérôme Mespoulet (R&D Engineer, THIOT Ingenierie, France)
12:15	Implementing a user material in Impetus – MHJC Jonas Rudshaug (Scientist, NDEA, Norwegian Defence Estates Agency, Norway)
12:40	Lunch Served at Maritim Fjordhotell
13:40-15:20	Session 8 Room: Storsalen

	Moderator: Brodie McDonald (Defence Scientist, Defence Science And Technology Group, Australia)
13:40	Investigation of the rebar model in Impetus Henrik Sjø (Scientist, FFI, Norwegian Defence Research Establishment, Norway)
14:05	An overview of IMPETUS use at MBDA UK David A. Kinson (Senior Lethality Engineer, MBDA UK, UK)
14:30	The behaviour of screw connections at high loading speeds as a result of pressure waves from remote detonations, focus on the residual load capacity – full-scale experiments Kira Buchenau (Universität der Bundeswehr München, UniBW, Germany)
14:55	Flexible plates subjected to internal detonations Benjamin Stavner Elveli (Scientist, NDEA, Norwegian Defence Estates Agency, Norway)
15:20	Coffee break Note change of conference room for the following session.
15:55-17:20	Session 9 Room: Kino Moderator: Maisie Edwards-Mowforth (PhD Student, The University of Edinburgh/NTNU)
15:55	Modelling a building subjected to an explosion in Impetus Tormod Grue (Scientist, Norwegian Defence Estates Agency, Norway)
16:20	The new Impetus support system Simon Jesser (Sales Manager, IMPETUS)
16:35	Ballistic properties of composite materials: An experimental and numerical study Daniel Eckhoff (PhD Student, Norwegian University of Science and Technology, NTNU, Norway)
16:55	HSR technology - problem definition, solution and way ahead. A means to efficiently add accuracy to material calibrations Harald Vistnes, Lars Olovsson, Ole Bernt Vatland, Markus Graswald, Arve Grønsund Hanssen (IMPETUS)
17:20	Conference closing
	In the afternoon we offer you to select from one of two possible activities, depending on your interests
18:00	Crash course in kayaking in the Flekkefjord bay Grab this unique chance to learn from the master himself - Olaf Søyland, 2 times World Champion in kayaking (sprint canoeing). Be prepared to get wet and bring suitable clothing. Meet up at Flekkefjord Kayak Club, Sundegaten 39.
18:00	Aperitif at Flekkefjord museum w/guided tour of old town Unique, event-specific session on local resistance during WW2 with authentic weapons collection. Get an introduction to our local history and the amazing story behind every item displayed.

	After these activities we offer to continue the evening at the ship M/S Sandnes
20:30	Fish soup & bar - M/S Sandnes A simple fish soup buffet will be served at M/S Sandnes and the bar is open.