DASSAULT SYSTEMES

SIMULIA

XFlow User Conference

October 2-3, 2017 | Madrid, Spain

PROGRAM

3DEXPERIENCE®

3DS.COM/SIMULIA

COLIN MERCER

VICE PRESIDENT SIMULIA R&D STRATEGY, DASSAULT SYSTÈMES

Welcome to Madrid and Our Growing SIMULIA Community

It is my privilege to welcome you to the 2017 international XFlow User Conference and the growing user community of the SIMULIA brand of Dassault Systèmes. The addition of the XFlow CFD team and technology to SIMULIA is a key part of our strategy to expand our solutions for robust and realistic multiphysics and multiscale simulation.

With XFlow, Dassault Systèmes is now the only solution provider delivering both Lattice-Boltzmann and Navier-Stokes CFD technology, which enables our user community to tackle the widest range of CFD workflows using the appropriate technology for their research, design and engineering needs.

The XFlow R&D team will work with Dassault Systèmes global R&D teams to further enhance the capabilities and performance of XFlow as well as integrate it with our world-renowned simulation products, such as Abaqus, Tosca, and Wave6. We will also extend the value of high-fidelity CFD to designers, engineers, product managers, and even product marketing groups, by integrating XFlow within Dassault Systèmes' 3DEXPERIENCE® platform. This platform accelerates innovation by providing all stakeholders in the product development cycle, access to a single source of truth of their digital models from concept, to functional requirements to design, simulation, testing and manufacturing.

I look forward to speaking with you to understand your engineering and simulation requirements, so that Dassault Systèmes can continue to deliver the simulation applications that you need to meet product and business demands.

DAVID HOLMAN

XFLOW GENERAL MANAGER, DASSAULT SYSTÈMES

Welcome to the 2017 XFlow User Conference

I am delighted to welcome our customers from leading international companies in the aerospace, automotive, energy, electronics and manufacturing industries to the 2017 XFlow User Conference.

I would like to thank all of our speakers for your dedication and commitment to presenting at the conference. I am also appreciative of our sponsors and general attendees. Without all of you taking the time and making the effort to participate, this event would not be possible.

We are extremely proud to be a part of SIMULIA brand of Dassault Systèmes. Our XFlow team shares a common culture and history with Dassault Systèmes that focuses on customer requirements and building long-term relationships.

We visit many customers around the world, we align our development strategy to our customer's needs, and we are always passionate about delivering advanced technology to meet your demands. Our team works hard to deliver an outstanding solution for relevant CFD problems currently unsolvable for other methodologies.

At this conference, we hope to provide you with a relaxed, professional environment that enables you to share your experiences, learn about our product plans, and gain additional knowledge that will help you achieve your engineering and business goals.

KEYNOTE SPEAKERS

AIRBUS

JOSÉ LUIS MARTINEZ MUÑOZ / RAÚL LLAMAS

José Luis and Raúl are currently working at the Future Projects office at Airbus Commercial Company. They are particularly working on future civil aircraft concepts definition and preliminary evaluation, with special focus on the design of the empennages and rear fuselage. During the design phases they use different low, medium and high fidelity tools, like XFlow, which helps him to quickly assess different design solutions, anticipating trends, problems and answers before further detail work will be necessary.

THE OCEAN CLEANUP

BÉNÉDICTE DOMMERGUES

The Ocean Cleanup (TOC) is an innovative startup that develops technologies to extract plastic pollution from the oceans and prevent more plastic debris from entering ocean waters Bénédicte is a part of the modelling team in TOC responsible for CFD analysis

SAFRAN HELICOPTER ENGINES

MARINE ROBIN / PASCAL MINGRET

Safran Helicopter Engines is the world's leading manufacturer of gas turbine engines for both civil and military helicopters. Among their functions, Marine and Pascal work on the optimization of the hydraulic systems and fuel pumps of helicopter engines using CFD analysis.

HONDA

KEIJIRO KOIDE

Kejiro Koide is currently an Assistant Chief Engineer at Honda R&D Co., Ltd. He is the in charge of thermal and flow analysis of Engine components over 10 years. Currently he is involved in the research of new component designs for Engine.

PRESENTERS

ANDHEO
TRISTAN SOUBRIÉ

Tristan is the CEO of ANDHEO, a consulting company based in Toulouse area in France. The company provides analysis services to large aerospace companies and OEMs.

LUC VAN BAVEL DESIGN
LUC VAN BAVEL

Luc Van Bavel is an aircraft designer based in Quebec City. He has been involved with the development of several personal jets such as the Safire Jet, Diamond D-JET and Epic Aircraft Victory jet. He has worked with Bombardier Aerospace on Special Mission aircraft and Luc is currently involved in a military trainer aircraft program in the United States.

AISIN AW
TAKESHI YAMAGUCHI

Takeshi-san is currently a senior researcher at AISIN AW Co., Ltd. and prior to that role, he was part of the company's design department. He holds a Ph.D. from Kyusyu Institute of Technology, Japan and a M.S from San Diego State University, U.S.A.

TOYOTA TEMA
TOM SHIEH

Tom Shieh is the CFD Group Manager at TEMA-TTC. He joined the company in January 2002. The CFD group is responsible for the new methodology development and applications for new engine design.

GRIDLAB
HERMANN MAIER

Hermann Maier is the owner & managing director of Gridlab GmbH in Austria. He studied Chemical Engineering at the University of Technology Graz and holds a PhD from the same university. His PhD dissertation was about CFD-modelling of the multiphase flow in FGD scrubbers.

EVIATION AIRCRAFT
OMER BAR YOHAY

Eviation Aircraft is developing, certifying and manufacturing an all-electric 11 seat regional commuter aircraft. As the company's CEO since conception, Omer has orchestrated the creation of the aerodynamics team and the definition of a development and tools strategy for progress. One of his most distinctive decisions was to make all CFD analysis capabilities in-house.

RUAG
PHILIPPE STEPHANI

RUAG is a Swiss technology company and is active in Aerospace and Defense. Philippe Stephani is working at the wind tunnel facility of RUAG Aviation in Emmen in the position of Senior Aerodynamic Engineer, concerned with simulation topics and testing. His work includes the planning of wind tunnel campaigns as well as providing aerodynamic support during those tests.

SOYOTEC
MAX LAI

Soyotec introduced XFlow to China since 2012 and is Dassault VAR (Value-Added Reseller) of 3DEXPERIENCE platform solution. In 2017, Soyotec has been awarded the "Chinese Top CAE Supplier" certification by Chinese Mechanical Engineering Society. Mr. Lai, with nearly 15 years experience in the CAE industry, is in charge of building and leading sales, services and support team in Soyotec.

INES INGENIEROS
JOSÉ LUIS MARTÍNEZ

José Luis is a Structural Engineer in Ines Ingenieros, a civil engineering company working in the design, construction, maintenance, preservation and rehabilitation, adaptation and demolition of infrastructures.

UNIVERSIDAD POLITÉCNICA DE MADRID - ETSIAE AEROSPACE
ESTEBAN FERRER

The Applied Mathematics Department at ETSIAE-UPM has over 20 years of experience working particularly on fluid dynamics and numerical methods, high order methods, Lattice Boltzmann Method, aerodynamics and flow control using adjoints for applications in aeronautics and renewable energies.

MVAERO
JAC VAN EGMOND

Jac is the founder of mvAERO, an aerodynamic design consultancy company which aims to work with the coolest aerodynamic projects in both private and academic worlds. A clear conceptual understanding of aerodynamics as well as expertise in state-of-the-art CFD solutions make for a trustworthy relationship and a high value proposition to their customers.

UNIVERSIDAD POLITÉCNICA DE MADRID- ETSI INDUSTRIAL
NOELIA LLORENTE

Noelia is working in Chemical and Environment Engineering Department, focusing on dynamic modeling, simulation and optimization of chemical and biological systems. Her research team is interested in theory and algorithms, computational implementations and especially in collaborations with industry oriented to solve real-world problems.

WB-SAILS
MIKKO BRUMMER

Mikko is one of the early adopters of XFlow and his works helped to introduce XFlow to the sailing community. Indeed, WB-Sails have been using XFlow over last years to optimize the performance of their sails designs. Their sails have been used by sailing teams who won Olympic medals in London and Rio de Janeiro.

DELTA ES CO.
YOUNG S. WON

Delta ES Co., Ltd. is a leader of engineering simulation products provider that was composed entirely of plentiful CAE/CFD experienced engineers in variety industries. Delta ES present optimized technology products and services to their customers thanks to their expertise in in-depth CAE/CFD engineering analysis technology, experience-gained know-how and integrated solution setup capabilities.

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IAGO FERNÁNDEZ

Gompute has been developing HPC solutions since 2002 to cover the needs of large enterprises and small consultants the company offers a complete portfolio that allow users to fulfill all their needs from a unique HPC partner.

ITER TEIDEHPC
JONATÁN FELIPE

ITER's TeideHPC is the second most powerful supercomputer in Spain, providing XFlow customers on-demand HPC power to run their simulations with good technical support and a very competitive cost.

DAY 1

CONFERENCE- MONDAY, OCTOBER 2, 2017

Time	Session	Speakers	Title
8:30- 09:00 am	Arrival and Registration		
9:00- 09:30 am	Welcome	**Dominique Florack,** Dassault Systèmes President, R&D **David Holman,** XFlow General Manager	Welcome Words and Overview Dassault Systèmes SIMULIA
9:35- 10:15 am	Keynote	**Airbus** Jose Luis Martinez-Muñoz, Project Engineer Raúl Llamas, Projects Engineer	Multifidelity and Multiresolution Aerodynamic Analysis in Aircraft Conceptual Design
10:20- 10:40 am	Expert session	**Soyotec** Max Lee, CEO	Numerical study of automotive flow-induced buffeting using XFlow and Lattice-Boltzmann Method
10:45 - 11:10 am	Break		
11:15- 11:35 am	Expert session	**Luc Van Bavel Design** Luc Van Bavel, CEO	Aircraft rigid body dynamics validation case study
11:40- 12:00 am	Expert session	**WB-Sails** Mikko Brummer, Head of R&D	Using XFlow CFD on the optimization of sails design
12:05- 12:25 am	Expert session	**Delta ES** Young S. Won, CEO	Flow characteristic analysis of existing CTCS system and design optimization by XFlow
12:30 - 02:00 pm	Lunch Time		
02:05- 02:45 pm	Keynote	**Safran Helicopter Engines** Marine Robin, Hydromechanics Engineer Pascal Mingret, Fuel Pump Expert Engineer	Analysis of the volumetric pumps and the secondary air system of a helicopter engine
02:50- 03:20 pm	Expert session	**RUAG** Philippe Stephani, Senior Aerodynamic Engineer	Using XFlow to solve aerodynamic engineering problems on Aerospace applications
03:25- 03:40 pm	Sponsor Session	**Gompute** Iago Fernández, Cloud Sales Director.	Speeding up your simulations in a secure cloud environment
03:40 - 04:05 pm	Break & Networking		
04:10- 04:30 pm	Expert session	**Eviation Aircraft** Omer Bar-Yohay, Co-Founder and CEO	Eviation Alice- Rapid aerodynamic development through highly iterative CFD processes
04:35- 04:55 pm	Expert session	**Universidad Politécnica de Madrid** Noelia Llorente, PhD Candidate	CFD simulation of sieve tray hydraulics using the Lattice Boltzmann Method
05:00 pm	End Day 1		
08:00 pm	Gala Dinner		

DAY 2

CONFERENCE - TUESDAY, OCTOBER 3, 2017

Time	Session	Speakers	Title
8:30- 09:00 am	Arrival		
9:00- 09:40 am	Keynote	**The Ocean Cleanup**, Benedicte Dommergues, Computational Modeler	CFD as a tool to design a plastic cleanup system- Impact of the geometry of a drift anchor on the flow around it and on its drag
9:45- 10:05 am	Expert session	**INES Ingenieros** José Luis Martinez, Civil Engineer	CFD Aided Analysis of Structural Forces in Caleido Tower, Madrid
10:10- 10:40 am	Expert session	**Toyota** Tom Shieh, CFD Group Manager	Using XFlow multiphase solver for automotive powertrain applications
10:45 - 11:10 am	Break		
11:15- 11:35 am	Expert session	**Andheo** Tristan Soubrié, CEO	Impact of helicopter rotor head turbulent wake on tail parts
11:40- 12:00 am	Expert session	**Universidad Politécnica de Madrid** Esteban Ferrer, PhD, Applied Mathematics Lecturer	Simulation of detached turbulent flows using XFlow
12:05- 12:25 am	Expert session	**mvAERO** Jac Van Egmond, Lead Aerodynamicist	How XFlow improved my conceptual understanding of aerodynamics
12:30 - 02:00 pm	Lunch Time		
02:05- 02:45 pm	Keynote	**Honda** Keijiro Koide Assistant Chief Engineer	Introduction of engine development use case for the purpose of improving CFD efficiency
02:50- 03:20 pm	Expert session	**AISIN AW** Takeshi Yamaguchi, Engineering Dep. CAE Gr.	Simulation of the flow field in a rotating single gear using immersed boundary method
03:25- 03:40 pm	Sponsor Session	**ITER TeideHPC** Jonatán Felipe, HPC Manager	XFlow CFD service in TeideHPC present and future infrastructure.
03:45 - 04:05 pm	Break & Networking		
04:10- 04:30 pm	Expert session	**Gridlab** Dr. Herman Maier, Managing Director	Mixing tank modelling with XFlow
04:35- 04:55 pm	XFlow Technology	**Dassault Systèmes** Ruddy Brionnaud, Lead XFlow Application Engineer	XFlow 2017x Introduction
04:55- 05:00 pm	Best Presentation Award		
05:00 pm	End Day 2		

DAY 3

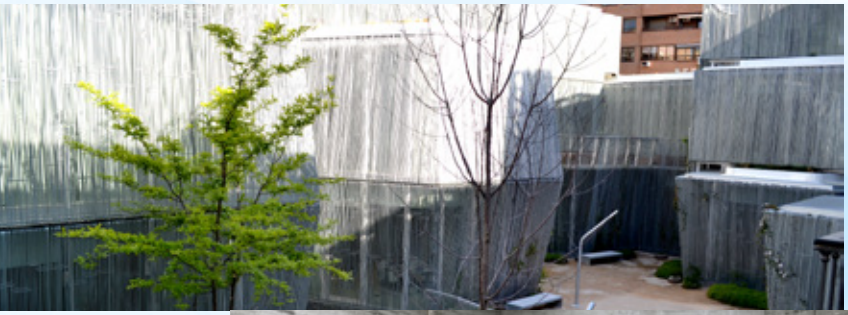
WORKSHOP - WEDNESDAY, OCTOBER 4, 2017

Time	Session	Content
8:30- 09:00 am	Arrival and Installation	
9:00- 09:30 am	Introduction	Workshop Introduction and XFlow Overview
9:30- 10:00 am	Lecture 1	Single-Phase Flow
10:00- 11:00 am	Case 1	External aerodynamics analysis of a DrivAer car model
11:00 - 11:25 am	Break	
11-30- 12:00 am	Lecture 2	Moving Parts & FSI
12:00- 13:00 am	Case 2	UAV quadcopter performance with rotating blades
13:00- 02:30 am	Lunch Time	
02:30 - 03:00 pm	Lecture 3	Free-surface Flow
03:00- 04:00 pm	Case 3	Free-surface tracking in a vehicle wading analysis
04:00- 04:30 pm	Lecture 4	Multiphase Flow
04:30 - 05:30 pm	Case 4	Gearbox lubrication analysis with real moving gears
05:30- 06:00 pm	Q & A	
06:00 pm	Workshop End	

LOCATION

The Educational Institution was founded in 1876 by a group of university professors (including Francisco Giner de los Ríos) distanced from the University to defend academic freedom and who refused to adjust their teaching to any official religious, political or moral dogma.

It is a place of memory that preserves and disseminates the historical legacy of the Free Institution of Education and a center of reflection and foresight to give impetus to the educational and cultural modernization of our country, providing citizens with new educational and cultural infrastructures.



Paseo del General Martínez Campos, 14, 28010, Madrid

Iglesia

More info: Simulia.XFlow-Events@3ds.com

GALA DINNER

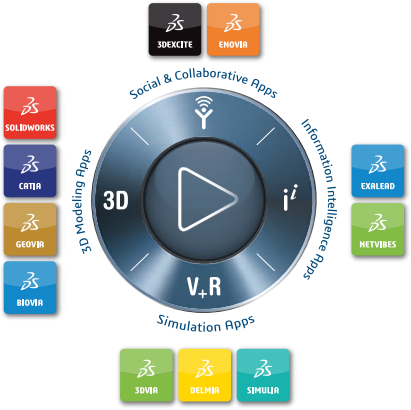
In addition to attending a series of unique events you will have the opportunity to celebrate and networking with your industry peers in a Gala Dinner, which will take place on Monday 2nd October at the renowned restaurant Palacio de Cibeles.

Plaza Cibeles, 1, 28014, Madrid

Banco España

Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.



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