





Introduction



Daniel KROB

Creator and General Chair of CSD&M
Institute professor, Ecole Polytechnique
President of CESAMES
INCOSE Fellow

The 13th edition of the international conference «Complex System Design & Management» (CSD&M 2022) will take place next December 15-16 in Paris.

CSD&M was created in France in 2010 by **Prof. Daniel KROB** and has been organized every year by the French non-profit organization **CESAMES**, with guidance & support of the Dassault Aviation – DCNS – DGA – Thales « Complex Systems Engineering » industrial chair of Ecole Polytechnique.

CSD&M is now one of the key event of the system engineering community in Europe and Asia. The Complex Systems Design & Management (CSD&M) conference is an international academic-industrial-governmental transversal forum for all actors working on complex industrial systems.

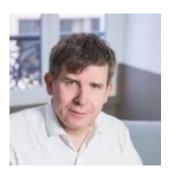
The conference gathers the main academic, governmental and industrial actors, CSD&M is one of the few places where you can talk about industrial complex systems in as broad a manner as possible (methods, tools, sciences, business cases...).

CSD&M 2022 will be held on 2 days. Speakers, partners, academics and industrial participants will have numerous opportunities to exchange.

Details on: https://cesam.community/en/csdm-paris-2022/

Committees of the CSD&M 2022





General Chair of the CSD&M 2022: **KROB Daniel CESAMES** France

ORGANIZING COMMITTEE (OC)



OC Co-Chair: **FANMUY Gauthier Dassault Systèmes** France



OC Co-Chair: **YAO** Junchen **CSAA** China

PROGRAM COMMITTEES (PC)



Academic PC Co-Chair: **BARON Claude** LAAS-CNRS, INSA, Université de Toulouse France



Industrial PC Co-Chair: **FERROGALINI Marco Airbus France**



Organizing Committee Members 1/2

Name	Institution	Country
ARBARETIER Emmanuel	APSYS	FR
BONJOUR Eric	Graduate School in Innovation and Systems Engineering (ENSGSI) of Université de Lorraine	FR
BOURGUIGNON Philippe	ENGIE	FR
BOY Guy-André	ESTIA INSTITUTE OF TECHNOLOGY	FR
CAO Xueqin	Chinese Institute of Electronics (CIE)	CN
CHEVALIER Thierry	Airbus	FR
DOUFENE Abdelkrim	IRT SystemX	FR
GAL Frédéric	Bouygues Construction	FR
GAUTIER Pierre-Etienne	SNCF	FR



Organizing Committee Members 2/2

Name	Institution	Country
GICQUEL Philippe	CIL4Sys Engineering	FR
HAN Yi	China Electro Technical Society (CES)	CN
JEAN-MARIUS Thierry	ArianeGroup	FR
MANGEANT Fabien	RENAULT	FR
MAURITZ Axel	MAURITZ Axel Systems Consulting	
ORSINI Jean-Jacques	ORSINI Jean-Jacques SAFRAN	
QU Yanbing	QU Yanbing China Ordnance Society (COS)	
WANG Junli	Chinese Society of Naval Architects and Marine Engineers (CSNAME)	CN
WANG Yiran	Chinese Society of Astronautics (CSA)	CN
ZHANG Jian	China Instrument and Control Society (CIS)	CN



Program Committee – Academical Members

Name	Academy	
BONJOUR Eric	Graduate School in Innovation and Systems Engineering (ENSGSI) of Université de Lorraine	FR
CAILLAUD Emmanuel	Conservatoire National des Arts et Métiers (CNAM)	FR
DACLIN Nicolas	as IMT Mines Ales	
DE WECK Olivier	WECK Olivier Massachusetts Institute of Technology (MIT)	
LI Lefei	Industrial Engineering Department of Tsinghua University	CN
LEVESON Nancy	Massachusetts Institute of Technology (MIT)	
RAUZY Antoine Norwegian University of Science and Technology (NTNU)		NO
THOMAS Carsten	MAS Carsten Hochschule für Technik und Wirtschaft Berlin	
WADE John	University of California San Diego	US



Program Committee – Industrial Members

Name Institution		Country
BAJAJ Manas	Intercax	US
BOUTEMY Remi	Nexter	FR
CAPONE Alexandre	CapGemini	FR
FUCHS Joachim	European Space Agency (ESA)	NL
GUILLERMO CHALE Hugo	Thales	FR
LORGEOUX Didier	Dassault Systèmes	FR
MURNIN Tim	Amazon	US

More to come...





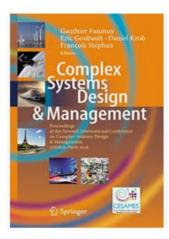
The conference "Complex Systems Design & Management" (CSD&M) is the International meeting point for academic researchers, industrial and governmental players working on complex industrial systems architecture & engineering and interested in Model-Based Systems Engineering. This event gives the opportunity to present and learn about innovative, methodological and technical results or good practices, feedbacks and professional case studies on industry, sciences and systems types.

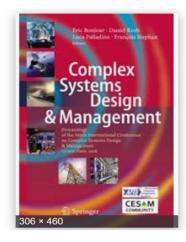
Industrial Fields	Scientific & Technical Topics
Industrial Fields - Aerospace - Automotive - Communications & E-services - Defense & Security - Electronics & Robotics - Energy & Environment - Healthcare & Welfare services - High-Tech - Logistics & Supply chain - Ship & Transportation	Scientific & Technical Topics Systems fundamentals Systems architecture & Engineering Model-Based Systems Engineering Big-data for industrial applications Systems manufacturing Systems Modeling & Simulation System optimization System project management Systems safety Systems serviceability
Software industryUrban & Public infrastructures	Systems Technology & PolicySystems Verification & Validation

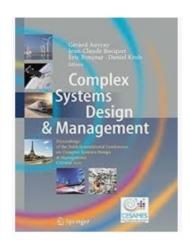
CSD&M Publication Policy

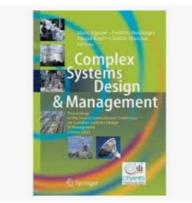


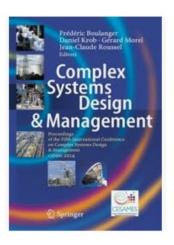
The proceedings of CSD&M are published by Springer Verlag in dedicated book series, and referenced & indexed in DBLP, El Compendex, ISI Clarivate and Scopus, examples below:

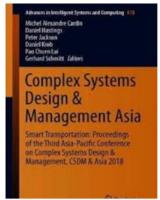


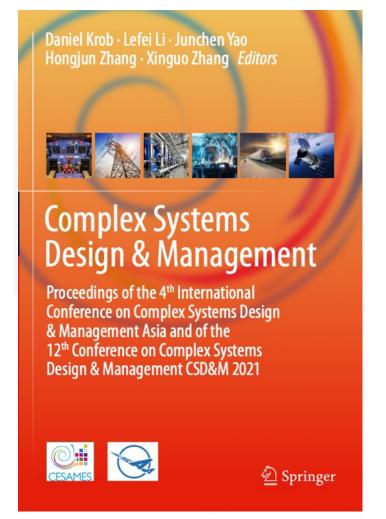


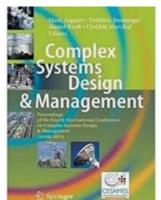


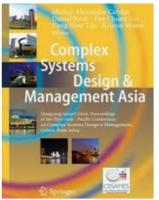














CSD&M Former Partners & Participants 1/2































































CCD&M

CSD&M Former Partners & Participants 2/2 (in alphabetical order, not exhaustive)





























































CSD&M Program



2 days in Paris to exchange about societal & industrial challenges and scientific & methodological state of the art in the field of systems modelling and management.

Keynotes presentations in plenary session, pitch startups, thematic & sectoral tracks and numerous teams selected to present their academic or professional works

One Poster Session to promote some work in progress and discuss on topics related to complex systems











More than 300 international attendees (academics, industrials, french and international), main actors of the international systems engineering community, at the heart of your sales target

Demonstrations and booths to present offers, services and the latest technological news

Numerous opportunities for networking

Become a Partner



CSD&M 2022 - VISIBILITY BEFORE THE EVENT 15-16 DEC. 2022









Web Site

Logo and link on the conference website: https://cesam.commu nity/en/csdm-paris-2022/

Emailing Campaigns

Logo on our monthly emailing campaigns (reaching ≥20000 contacts)

Social networks

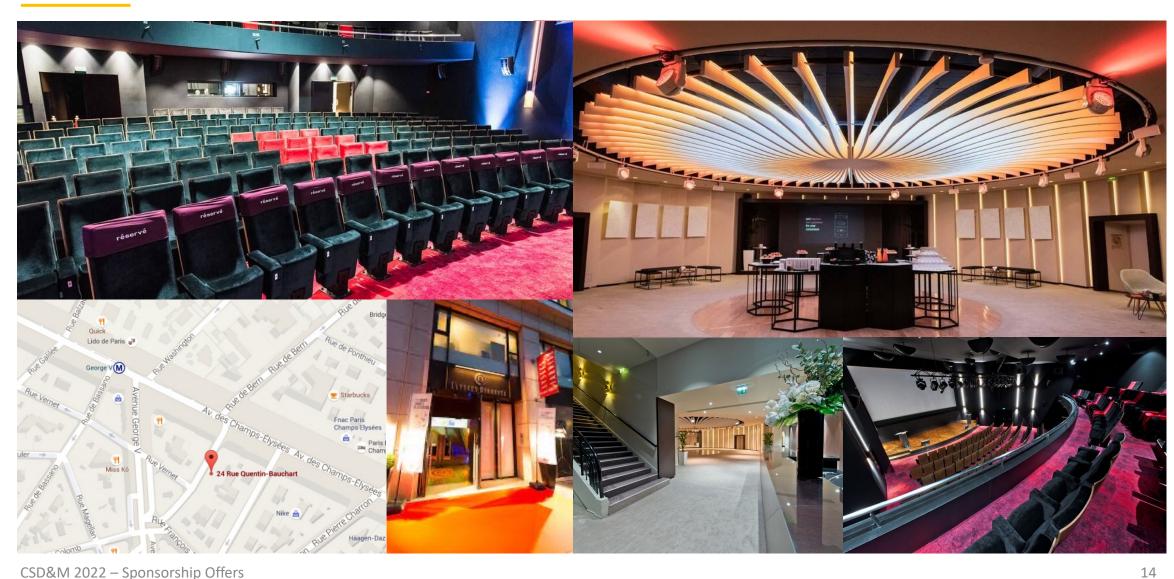
Posts on CESAMES's social networks (LinkedIn, WeChat and Weibo) to highlight your participation (reaching ≥10000 followers)

Event

Name on the conference proceedings and logo on the CSD&M flyers, distributed during the event

Venue: Elysées Biarritz

IN DOWNTOWN PARIS: 22-24 RUE QUENTIN-BAUCHART, 75008 PARIS

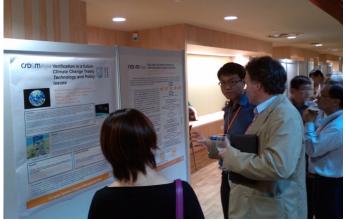


Become a partner (on-site)

CSD&M 2022 - VISIBILITY DURING AND AFTER THE EVENT 15-16 DEC. 2022











Logo & Inserts & Banners

The conference proceedings published ISBN and referenced EI, ISI, DBLP and Scopus will last forever/ Inserts on the welcoming pack (leaflets, goodies) for all the participants and logo on the conference material (program, banners, presentation)

Plenary Talk & Live Network

Case study or customer testimonial success story durng the plenary session or Contributed Talks Posters Session, coffee & lunch breaks are key moments to capture attention

Booth & Business Opportunities

Booth displaying the latest offers and technologies will allow interactions and business opportunities

Name remained in conference proceedings and communications of the CESAM Community

Sponsors' names on the conference proceedings published ISBN will last forever and mentionned often at CESAM's events



Program - Day1 - Morning

9h00	Keynote (more information to come)
Contributed tal	lks (20' each)
#1 theme: How	to engage and perform a digital transformation within your eco-system
Paths and expe	rience feedbacks on digital transformation initiatives withing an organization or with the eco-system
9h30	→ GIFAS-AFIS Crisee : Generic Collaborative Process Framework for simpler and efficient SE at extended entreprise level
91130	Airbus - ArianeGroup Christophe Ducamp, Gerald Pignie and Pierre de Chazelles
9h50	Talk #2
10b10	→ An MBSE Implementation Process Framework Based on Multiple Modeling Capability Stages
10h10	China Helicopter Research and Development Institute Yuqiang Guo, Shuhuan Sun, Hui Zhao and Jin Li
10h30	→ Europe's Rail Joint Undertaking: System Pillar
101120	Europe's Rail Joint Undertaking Ian Conlon
COFFEE BREAK	
Contributed tal	lks (20' each)
11h20	→ Systems Engineering Journey on ATLAS Program
111120	AFIS - AFNeT Services Pascal Hubert, Pierre Faure, Jean Brangé and Jean-Luc Garnier
11h40	→ Research on Advanced Avionics System Architecture Technology
111140	China National Aeronautical Radio Electronics Research Institute Jinyan Wang, Qing Zhou and Mingren She
12h00	→ On the use of Artificial Intelligence for Product-Service Systems
121100	Thales Hugo Guillermo Chalé Gongora, Juliette Mattioli and Pierre-Olivier Robic
12h20	Talk #8
LUNCH BREAK	



Program - Day1 - Afternoon

14h00	Keynote (more information to come)			
Contributed ta	Iks (20' each)			
#2 theme: Mo	deling and Simulation Systems Engineering practices			
Best practices	for model-based techniques in a modeling and simulation (MODSIM) approach, to specify, analyze, design and verify systems			
14h30	→ Extending Model-Based Systems Engineering with Requirements-In-the-Loop Simulation: The Landing Gears Case-Study			
141130	Dassault Systemes Fabien Gaucher			
14h50	→ Towards Model-Based Functional Hazard Assessment (FHA) with UML			
141130	University of Toronto - Safran Landing Systems Kimberly Lai, Thomas Robert, David Shindman and Alison Olechowski			
	→ Maritime stakeholder model-based decision-making for accelerated adoption of autonomous vessels by analyzing tradeoffs in R&D investment,			
15h10	manufacturing, and operational experience			
	The University of Tokyo - ClassNK - Mitsui O.S.K. Lines, Ltd Massachusetts Institute of Technology Takuya Nakashima, Tomohiro Sugimoto, Keisuke			
	Kimura and Bryan Moser			
15h30	→ Reverse Engineering of a CubeSat with MBSE			
	Airbus - Samares Engineering Raphael Faudou, Julie De Sousa, Jean-Luc Marty and Marie-Hélène Deredempt			
	& POSTER SESSION (see details below)			
Contributed ta	• •			
	→ The Need to Simultaneously Consider Modularization and Interface Design during Systems Architecting: an Exploration of their Joint Impact on			
16h50	System Performance and Cost			
	The George Washington University Taylan Topcu and Zoe Szajnfarber			
17h10	→ Enabling multidisciplinary-analysis of SysML models in a heterogeneous tool landscape using Parametric Analysis Models			
	Airbus Central R&T Philipp Helle, Gerrit Schramm, Sergio Feo-Arenis and Sönke Klostermann			
17h30	→ Spiral Approach for SE Research (SASER) - mating research to practice -			
University of Twente G.Maarten Bonnema, Marcus V. Pereira Pessoa and Kostas Nizamis				
17h50	→ <u>Prerequisites for an MBSE adoption support approach</u>			
	Airbus - ERPI - IAE Lyon School of Management Léa Kozak, Frederique Mayer, Eric Bonjour, Jean-Pierre Micaelli and Arnaud Riviere			
18h10	→ <u>Kalman Filtering for SAR Satellite Yaw Steering</u>			
	Aviation Industry of China (AVIC) - Airforce Engineering University Yongfei Ding, Dinghai Xu, Yu Li, Zheng Fang, Tao Chen and Hengyang Zhang			
18h30	End of day one			



Program - Day2 - Morning

Keynote (more information to come)
ss (20' each)
ing sustainable, secured, evolutive and resilient systems
ing methods to adress new expected system perspectives such as security, sustainability, resiliency and scalability
→ Resilience Assessment of Industrial Processes within the Aircraft Industry
Fraunhofer EMI - Airbus / Central R&D, Virtual Product Engineering, 1RXV - INATECH, University of Freiburg Kai Fischer, Andreas Mitschke, Oliver Klaproth, Arnd Schirrmann and Alexander Stolz
→ A Model-Based System Engineering approach for Multi-Disciplinary Analysis and Design Optimisation processes definition
IRT Saint Exupery - Airbus Operations - Capgemini- Expleo Group Romaric Demachy, Mickael Guillen, Anne Gazaix, Vincent Ambert, Jean-Christophe Giret, Louis Jayez and Joël Brezillon
→ Systems Engineering Digital Thread – An end-to-end holistic approach from Mission to Physical
Dassault Systèmes Gauthier Fanmuy, Arnaud Durantin and Pierre-Yves Boyer
→ Research on the Architecture of Military Helicopter Requirements Demonstration Based on System Engineering
China Helicopter Research and Development Institute Benchao Lou, Qiang Sun and Fang Chen
ss (20' each)
→ Methods for Extracting Structured Data from Engineering Requirements using Natural Language Processing
Airbus - Massachusetts Institute of Technology Johannes Norheim, Shao Lim, Alain Kerbrat and Eric Rebentisch
→ Theory and Practice on Architecture Design and Performance Evaluation of Civil Avionics System based on Model
China National Aeronautic Radio Electronics Research Institute Haiyong Dong, Qingfan Gu and Hao Rong
→ Adaptative Workflows for Process Management
IMT, Mines-Ales - Holy Spirit University of Kaslik (USEK) Charbel Kady, Francois Trousset, Nicolas Daclin, Gregory Zacharewicz, Charles Yaacoub and Adib Akl
→ Knowledge management in consulting firms: a survey for designers
CentraleSupelec - Sibylone Mohammadreza Mirafzal, Piyush Wadhera and Julie Stal-Le Cardinal



Program - Day2 - Afternoon

14h00	Keynote (more information to come)			
14h30	→ Analysing the Scaled Agile Framework (SAFe) from an Organizational and Strategic Research Point of View			
141150	Universiteit Antwerpen - Engie Geert Haerens			
	→ RAMI Toolbox: A Framework enabling Model-based Systems Engineering of complex Flexible Production Systems			
14h50	Salzburg University of Applied Sciences - Siemens Technology - FH Salzburg - Otto-vGuericke University Christoph Binder, Ambra Calà, Jan Vollmar, Boris Brankovic, Christian Neureiter and Arndt Lüder			
15h10	→ <u>Tactical Agents System for Sensor Suites</u>			
120110	Thales Ludovic Grivault			
COFFEE BREAK				
Contributed tal	ks (20' each)			
#4 theme: Mea	ns and methods to integrate humans in virtual playgrounds			
Integration of t	ne human as a virtual twin into the system to better anticipate incresaing system complexity and autonomy			
16h00	Industrial talk			
16h00	Dassault Systemes			
16h20	→ Implementing Systems Thinking for a Complex System via Experiential Learning			
161120	Purdue University - Air Company Nicholas Steinke and C. Robert Kenley			
16h40	> Exploring and setting up the methods to benefit from synergies between an agile project development and systems engineering			
101140	ArianeGroup Arthur Schmitt and Bruno Ferard			
17h00	→ An approach for exploring non-technical complexity in engineering design processes			
171100	University of Twente Younjung Choi, Gisela Garza Morales, Marcus Pereira Pessoa and Maarten Bonnema			
17h20	End of day two			

Become a partner



CSD&M 2022 - 15-16 DECEMBER 2022 - SPONSORSHIP OPTIONS (1/2)

Offers / Packs	Bronze pack	Silver pack	Platinum pack	Diamond Pack*
Before the event				
Logo on all the conference materials (website, flyers, monthly emailing campaigns) and link on the conference website	x	x	x	x
During the event				
Logo on all the conference material (banners, slides, program)	X	X	X	Х
Insert into the welcoming pack (leaflet or goodie) for all the participants	X	X	X	X
Free registrations for your staff, including 2-day access to the conference	Access to replays*	2 on site + Access to replays	4 on site + Access to replays	6 on site + Access to replays
30 % discount on other registrations (for your partners and customers)		X	X	X
Regular booth: one table, 2 chairs		X		X
Large booth: two tables, 4 chairs (contact for more details)			X	
After the event				х
Logo on the conference materials, community event's presentations and name on the conference proceedings	х	x	х	х
List of registered participants (first name, last name, job title, company, email) 1		Х	X	Х
Total cost with VAT (6% tax included)	14,500 RMB	32,500 RMB	58,000 RMB	79,500 RMB

^{*}IMPORTANT: this year the conference will be held 100% on site

For sponsors ONLY, a dedicated webpage will be accessible with all replays of conference presentations.

Full access is granted to sponsors for 6 months after the conference

Become a Partner



CSD&M 2022 - 15-16 DECEMBER 2022 - SPONSORSHIP OPTIONS (2/2)

Offers for your partners

If your organization wishes to invite some partners to attend the event by registering as participants, we would be pleased to provide you with:

Delegation Packages	Total cost	
Registration of 5 to 10 persons - 10 % on each registration		
Registration up to 10 persons	- 20 % on each registration	

Conference Registration Fees

ACADEMIC/NON PROFIT ORGANIZATION	No INCOSE Member	INCOSE Member & Selected Authors
Early Bird fees until August 31, 2022	2,200 RMB (≈ 315 €)	2,000 RMB
Standard fees	3,200 RMB (≈ 450 €)	3,000 RMB

INDUSTRIAL	No INCOSE Member	INCOSE Member & Selected Authors
Early Bird fees until August 31, 2022	4,600 RMB (≈ 665 €)	4,000 RMB
Standard fees	6,600 RMB (≈ 950 €)	6,000 RMB

To register: https://cesam.community/en/csdm-paris-2022/#register



