

<p>Curriculum Vitæ Laurent M. CHAUDRON</p>
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Brief bio

Research scientist in Cognitive Sciences and AI

Dr, Habilitation-Thesis^a Orcid 0000-0002-0834-5607

· Formal modelling · Human Reasoning · MetaCognition · Decision · Virtual Minds
· Continuous Learning · Trust Model · Cooperative and Conflicting Agents · Self-Orientation · Handicap and Rehabilitation · Peace Engineering ·

CEO Theorik-Lab: research institute in cognitive sciences

Associated Scientist French Space & Air Force.

CIO (Chief Imagination Officer) Safety.

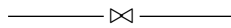
CSO of 'Cognitive Guild' (npo dedicated to the progress of Mankind)

(Former director of a national aerospace research center)

Kendo teacher and national instructor (martial art of japanese fencing, 6th dan renshi)

Cajon percussionist

^a@ HDR École Doctorale 184 Mathématiques et Informatique, AMU

**Education**

1981: Bachelor's degrees in Mathematics and Physics, University Paris VII

1984: Graduated from École Polytechnique: *Promotion "X 1981"*

1989: PhD Thesis, Toulouse University and Supaero, Artificial Intelligence:

Contribution to Approximate Reasoning

2005: Habilitation Thesis (HDR) Toulouse University, Cognitive Science:

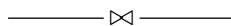
Simple Structures for Complex Knowledge

Other National Diplomas

1977: Lifeguard Master

1988: Professional Sport Teacher: Kendo Renshi 6th dan. Member of the
National Kendo Education Commission

2019: Certified Educator for PWD (Persons With Disabilities)



Positions

Current:

- CEO Theorik-Lab (Research and Training Institute in Cognitive Sciences)
- Associated Scientist at French Space & Air Force Research Center
- Attached HDR @ Doctoral Curriculum 184 'Mathematics and Computer Science, Aix-Marseille University
- CIO¹ Safetyn

2007-2019: Director of Onera Provence Research Center

1991-2007: Research Scientist at Onera, Maître de recherche

1984-1990: Researcher at the Land Force Staff Computer Science Research Section

Other Responsibilities

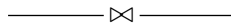
Since 2017: Scientific Governor of the Cognitive Guild (non profit org.)

Since 2013: Colonel de la Réserve Citoyenne de l'Armée de l'Air et de l'Espace

2014: Co-founder of the Competitive Cluster SAFE

2004-2014: Member of the Board of Directors of Onera

1991-2004: Elected Staff Representative



Teaching

Teaching Shifts

Toulouse University, ISAE, Aix-Marseille University

French Air and Space Force Academy

Continuous Training: Eurosae

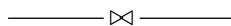
Supervisor

100 master theses

10 PhD theses

Referee or Board: 20 PhD or Habilitation Theses

Currently: 2 theses supervised



¹Chief Imagination Officer safetyn.com

Research in Brief

Keywords

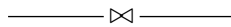
Formal modelling, Logic, Lattices, Human Reasoning, Cooperative Systems, Conflict, Decision, Metacognition, Didactics, Autopoiesis, Life long Learning, Trust, Rehabilitation ...

Current topics

Research topics are structured through 3 subspaces:

- **Ultimate topics:** Research Theory, PEP Peace Engineering Program (modeling of Peace as an autopoiesis property of human structures), CWP Continuous World Paradigm (prerequisites for both discrete and continuous models of knowledge), Life Long Learning
- **Kernel topics:** Causality, Decision, Soft-Negation, Autopoiesis
- **Generative topics:** Metacognition, Team Cognition, Operative Reasoning, Trust, Eucalepic effect, Didactics for All, Rehabilitation.

⇒ See hereafter the scrapbook list of publications



Bio

Personnal

Married, 5 children.

Kendo teacher.

Percussionnist: cajon rock player.

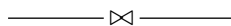
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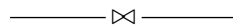


Recent Publications

- [Cha23a] Laurent M. Chaudron. “Peace Proving by Fight for Fake”. In: *5th B. Coben Conference Places & Spaces for Peace*. Ed. by Ball State Center for Peace & Conflict Studies. Ball State University, Indiana, USA, April 7–8, 2023.
- [Cha23b] Laurent M. Chaudron. “Self-Transmission of Memory in the Future”. In: *The 6th International Interdisciplinary Conference on Memory, Forgetting and Creating*. Ed. by InMind Support. Gdansk, Poland and Hybrid, January 19–20, 2023.
- [CBM23a] Laurent M. Chaudron, Olivier Bartheys, and Marion Mazeran. “Métacognition et Hyper-métacognition chez les enseignants et formateurs”. In: *Biennale de l'éducation 2023*. Ed. by Biennale Intenationale. In French. Paris, September 20–23, 2023.
- [CBM23b] Laurent M. Chaudron, Olivier Bartheys, and Marion Mazeran. “The Continuum World Paradigm in Dynamic Interactions”. In: *14th International Conference on Applied Human Factors and Ergonomics*. Ed. by AFHE 2023. *to appear*. San Fransisco, USA, July 20–24, 2023.
- [Cha+23] Laurent M. Chaudron, Lisa Chouchane, Jean-Marie Burkhardt, Pauline Muñoz, Nicolas Maille, and Anne-Lise Marchand. “Trust: the Vital Fluid of Interactions”. In: *14th International Conference on Applied Human Factors and Ergonomics*. Ed. by AFHE 2023. *to appear*. San Fransisco, USA, July 20–24, 2023.
- [Cha22] Laurent M. Chaudron. “A Peace Modeling Program”. In: *Annual Conference of the Peace and Justice Studies Association*. Ed. by PJSJA. University of Mount Union, Ohio, USA, October 13–16, 2022.
- [CC22] Laurent M. Chaudron and Lisa Chouchane. “La Confiance : un vital fluide social”. French. In: *TEC, Revue de l'ATEC - Intelligent Transport Systems. Les mobilités à la recherche de l'adhésion sociale* 255 (November 2022), pp. 35–36. ISSN: 0397-6513. URL: atec-its-france.com/revue-tec/.
- [CCB22] Laurent M. Chaudron, Lisa Chouchane, and Jean-Marie Burkhardt. “A Generic Trust Model”. In: *International Conference on Cognitive Aircraft Systems ICCAS 2022*. Ed. by ISAE-SUPAERO. Toulouse, France, June 1–2, 2022.
- [CCS22] Laurent M. Chaudron, Laura Christon, and Julien Sendrès. “Metacognition Strikes Back”. In: *International Conference on Cognitive Aircraft Systems ICCAS 2022*. Ed. by ISAE-SUPAERO. Toulouse, France, June 1–2, 2022.

- [Pau+22] Florin Paun, Thomas O'Neal, Ingrid Vaileanu, and Laurent M. Chaudron. "New paradigm open evaluation of the blockchain value by agilizing innovation tools. From Design Thinking to Agile Demo-Tech Thinking!" In: *ISTE Journal, Technology and Innovation* 7.22 (2022). DOI: 10.21494/ISTE.OP.2022.0824.
- [BC21] Olivier Bartheve and Laurent M. Chaudron. "Principles of an Accurate Decision and Sense-Making for Virtual Minds". In: *Engineering Artificially Intelligent Systems*. Ed. by Lawless W.F., Llinas J., Sofge D.A., and Mittu R. Vol. 13000. Lecture Notes in Computer Science. Springer, 2021, pp. 260–279. DOI: 10.1007/978-3-030-89385-9_16.
- [Bol+21] Florent Bollon, Nicolas Maille, Jean-Marc Salotti, Anne-Lise Marchand, and Laurent Chaudron. "De la Network Centric Warfare à la Recognized Cyber Picture, la confiance interpersonnelle comme facteur de gestion des crises cyber". In: *16^e Conférence Internationale EUTIC*. Ed. by EUTIC International Multidisciplinary Research Network on the Challenges and Uses of ICT. In French. Université libre de Bruxelles, Belgique, October 25–26, 2021. URL: conference-eutic.org.
- [Cha+21a] Laurent M. Chaudron, Olivier Bartheve, Laura Christon, and Arnaud Villand. "A MetaCognitive Conceptual Continuum". In: *4th Artificial Intelligence and Cloud Computing Conference*. Ed. by AICCC. Kyoto, Japan, December 17–19, 2021.
- [CB21] Laurent M. Chaudron and Hervé Brutschi. "The Contribution of Kendo to Peace Engineering". In: *The 7th Conference on Human Development in Asia*. Best Paper Award. International Education for Sustainable Development Alliance (INTESDA). Tokyo/on-line, December 6–7, 2021.
- [CC21] Laurent M. Chaudron and Laura Christon. "Hyper-Metacognition in Effective Demonstration". In: *Proceedings of the Conference "Embodied Cognition at the Crossroads of Philosophy, Linguistics, Psychology and Artificial Intelligence"*. Cluj-Napoca, Romania, May 13–15, 2021.
- [CCP21] Laurent M. Chaudron, Laura Christon, and Lily Paul. "Métacognition et médiation numérique en apprentissage". In: *Conférence ROC 2021 Solidarités numériques en éducation : une culture en émergence*. In French. Colloque 100% numérique, November 17–19, 2021. URL: <https://colloqueroc.teluq.ca>.
- [CEB21] Laurent M. Chaudron, Jean Erceau, and Olivier Bartheve. "From "Fight for Fake" to Trust and Peace". In: *The 4th International Interdisciplinary Conference on Human Rights, Violence and Dictatorship*. Ed. by InMind Support. Gdansk, Poland, November 18–19, 2021.

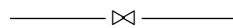
- [Cha+21b] Laurent M. Chaudron, Anne-Lise Marchand, Nicolas P. Maille, and Pauline Muñoz. “Cognitive Welfare and mixed-Trust”. In: *WABT 2021 International Educational Seminar on Social Determinants of Health*. Ed. by Incontri dell Umano. Invited paper. Rome, Italia, December 16–17, 2021.
- [Pau+21] Florin Paun, Thomas O’Neal, Ingrid Vaileanu, Laurent M. Chaudron, Arnaud Castelltort, and Anne Laurent. “Nouveau paradigme d’évaluation ouverte de la valeur blockchain grâce aux outils d’agilisation de l’innovation”. In: *DIF2021, Intl. Conference on Digital, Innovation, Entrepreneurship and Financing*. in French. INSEEC U. Lyon, France, December 21–23, 2021.
- [BC20] Olivier Bartheve and Laurent M. Chaudron. “Human-Machine Sense-Making in Context-Based Computational Decision”. In: *Human-machine Shared Contexts*. Ed. by Ranjeev Mittu William Lawless and Donald Sofge. Elsevier, 2020. Chap. 19, pp. 385–398. ISBN: 978-0-12-820543-3.



Publications Scrapbook

- [CEB19] Laurent M. Chaudron, Jean Erceau, and Olivier Bartheve. “Elements of Peace Modeling”. In: *Peace and Conflict Resolution Conference*. Ed. by Tomorrow People Organization. Bangkok, Thailand, November 15–17, 2019. URL: pcrconference.org.
- [Cha17] Laurent M. Chaudron. “Metacognition and the Continuous World paradigm”. In: *Intl. NATO Conference on Artificial Intelligence, Autonomy, Delegation and Responsibility*. NATO S&T. Bordeaux, France, June 21, 2017.
- [Cha+16] Laurent Chaudron, Helio Kadogami, Nicolas Maille, and Guillaume Roumy. “Meta-Cognitive Skills Modeling, Communication and Reasoning among Agents”. In: *1st International Conference of Neuroergonomics*. Ed. by Axa-Isae Neuroergonomics. Paris, France, October 6–7, 2016.
- [BC15] Olivier Bartheve and Laurent M. Chaudron. “Risk management systems must provide automatic decisions according to crisis computable algebras”. In: *AAAI SpringSymposia 15, Standford, USA (2015)*.
- [Cha+15] Laurent Chaudron, Jean Erceau, Cyril Duchon-Doris, and Victor Fighiera. “Formal Approaches for Autonomous Systems: a Generic Peace Engineering Program”. In: *Proceedings of the International Conference on Software, Multimedia and Communication Engineering*. Ed. by DEStech. Hong Kong, China, September 20–21, 2015. ISBN: 978-1-60595-284-0.
- [CB15] Laurent M. Chaudron and Olivier Bartheve. “Algebraic Models of the Self-Orientation Concept for Autonomous Systems”. In: *AAAI SpringSymposia 15, Standford, USA (2015)*.

- [Law+15] William F. Lawless, Don A. Sofge, Laurent Chaudron, and Olivier Barthe-
eye. “Bistability, Nash Equilibria, Relatively Dark Collectives, and Social
Physics: Modeling the Social Behavior of Teams”. In: *Journal of Enterprise
Transformation* 5 (4 2015), pp. 241–274.
- [CM14] Laurent Chaudron and Nicolas P. Maille. “Towards more integrated safety
management tools for airlines”. In: *Journal of Aerospace Engineering* 3.228
(2014). Prize: Derek George Astridge Safety in Aerospace Award, Nov. 9 2015, Lon-
don, pp. 342–354.
- [Cag+11] Pierre Cagnac, Noël Di Noia, Chao-Hui Huang, Daniel Racoceanu, and
Laurent Chaudron. “Consciousness-driven model for visual attention”.
In: *The 2011 International Joint Conference on Neural Networks*. 2011, pp. 1061–
1066. DOI: 10.1109/IJCNN.2011.6033340.
- [Chao5] Laurent Chaudron. *Simple Structures for Complex Knowledge*. Habilita-
tion Thesis, Toulouse University, France, June 6, 2005.
- [CMB03] Laurent Chaudron, Nicolas Maille, and Marc Boyer. “The CUBE lattice
model and its applications”. In: *Applied Artificial Intelligence* 17.3 (March
2003), pp. 207–242.
- [TCM00] C. Tessier, Laurent Chaudron, and H. J. Müller, eds. *Conflicting agents -
Conflict management in multi-agent systems*. Isbn 0-7923-7210-7. Kluwer,
2000.



Workshops

- [CL23] Laurent Chaudron and Véronique Lespinet, eds. *Atelier: Dynamiques des
éducations inclusives handicaps-valides*. In French. Biennale de l’éducation
2023. Paris, September 20–23, 2023.
- [CC21] Laurent Chaudron and Alexie Charrieras, eds. *EFFICIENSAFE ’ 21*. In
French. SAFETYN 1st Conference on the Safety-Efficiency Synergy. Avi-
gnon Airport, France, June 1, 2021.
- [CB20] Laurent Chaudron and Olivier Barthe-ye, eds. *KR Workshop “Knowledge
Representation for All Minds”*. WS planed but postponed due to Sars-Cov2.
KR2020 17th Intl. Conference on Principles of Knowledge Representa-
tion and Reasoning. Rhodes, Greece, September 18, 2020.
- [CE12] Laurent Chaudron and Jean Erceau, eds. *Workshop W2: Self-Orientation
Models*. CCCA. Marseille, France: IEEE 2nd International Conference on
Communications, Computing and Control Applications, December 12,
2012.

- [CL00] Laurent Chaudron and Patrick Le Blaye, eds. *Workshop Modelling Human Activity*. Inria. COOP'2000 Fourth International Conference on the Design of Cooperative Systems, May 25–26, 2000.
- [CT99] Laurent Chaudron and C. Tessier, eds. *Workshop W8: Going Further with Agents Conflicts: Definitions and Roles in Agents Evolution*. Orlando, USA: Association for the Advancement of Artificial Intelligence, July 18, 1999.
- [CT98] Laurent Chaudron and C. Tessier, eds. *Workshop "Conflicts among agents: avoid or use them?"*. Brighton, UK, August 25, 1998.