

## Liste des publications et conférences 2019–2025

### 2025

- Alain Finkel, Gaspard Fougea, Stéphane Le Roux. *An Automata-Based Method to Formalize Psychological Theories -- The Case Study of Lazarus and Folkman's Stress Theory*. 13th International Conference on Model-Based Software and Systems Engineering (Modelsward), 26–28 Feb. 2025.
- Raphaël Faure and Alain Finkel. *Automatizing Linguistic Frameworks with LLMs: An Approach to Analyzing Personal Narratives*. The 3rd International Conference on Foundation and Large Language Models (FLLM2025), 25–28 novembre 2025, Vienne, Autriche.
- G. Cortal and A. Finkel. *Formalizing Style in Personal Narratives*. In Proceedings of EMNLP 2025, Suzhou, China. ACL. Poster, slides, video. 22% acceptance. Nov 4–9, 2025.

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### 2024

- Michael Blondin, Alain Finkel, Piotr Hofman, Filip Mazowiecki, and Philip Offtermatt. *Soundness of reset workflow nets*. In LICS 2024, pages 13:1–13:14, 2024.
- Benedikt Bollig, Alain Finkel, and Amrita Suresh. *Branch-well-structured transition systems and extensions*. Logical Methods in Computer Science, 20(2), 2024.
- Alain Finkel and Mathieu Hilaire. *Resilience and home-space for wsts*. In VMCAI (1) 2024, pages 147–168, 2024.
- Nicolas Richet, Soufiane Belharbi, Haseeb Aslam, Meike Emilie Schadt, Manuela González-González, Gustave Cortal, Alessandro Lameiras Koerich, Marco Pedersoli, Alain Finkel, Simon Bacon, and Eric Granger. *Text- and feature-based models for compound multimodal emotion recognition in the wild*. ABAW Competition @ ECCV 2024, 2024.
- Gaspard Fougea, Alain Finkel, and Stéphane Le Roux. *Finite automata as a tool for modeling psychological phenomena*. ASSC 27, Tokyo, Japan, July 2–5, 2024.

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### 2023

- Gustave Cortal, Alain Finkel, Patrick Paroubek, and Lina Ye. *Automatisation du codage des récits de rêve : une approche basée sur la génération de paraphrases*. Affects, Compagnons Artificiels et Interactions, Strasbourg, July 4, 2023.
  - Gustave Cortal, Alain Finkel, Patrick Paroubek, and Lina Ye. *Détection de l'émotion à partir de ses composantes dans des récits émotionnels*. EGC 2023, pages 665–666, Lyon, January 16–20, 2023.
  - Gustave Cortal, Alain Finkel, Patrick Paroubek, and Lina Ye. *Emotion recognition based on psychological components in guided narratives for emotion regulation*. SIGHUM Workshop, ACL, Dubrovnik, 2023.
  - Alain Finkel, Serge Haddad, and Lina Ye. *About decisiveness of dynamic probabilistic models*. CONCUR 2023, pages 14:1–14:17, 2023.
  - Alain Finkel, Serge Haddad, and Lina Ye. *Introducing divergence for infinite probabilistic models*. RP 2023, pages 127–140, 2023.
  - Alain Finkel, Shankara Narayanan Krishna, Khushraj Madnani, Rupak Majumdar, and Georg Zetsche. *Counter machines with infrequent reversals*. FSTTCS 2023, pages 42:1–42:17, 2023.
  - Igor Khmelnitsky, Daniel Neider, Rajarshi Roy, Xuan Xie, Benoît Barbot, Benedikt Bollig, Alain Finkel, Serge Haddad, Martin Leucker, and Lina Ye. *Analysis of recurrent neural networks via property-directed verification of surrogate models*. Int. J. Softw. Tools Technol. Transf., 25(3):341–354, 2023.
  - Alain Finkel and Étienne Lozes. *Synchronizability of communicating finite state machines is not decidable*. Logical Methods in Computer Science, 19(4), 2023.
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## 2022

- Benedikt Bollig, Alain Finkel, and Amrita Suresh. *Bounded reachability problems are decidable in fifo machines*. Logical Methods in Computer Science, 18(1), 2022.
- Benedikt Bollig, Alain Finkel, and Amrita Suresh. *Branch-well-structured transition systems and extensions*. In FORTE 2022, pages 50–66, 2022.
- Gustave Cortal, Alain Finkel, Patrick Paroubek, and Lina Ye. *Natural language processing for cognitive analysis of emotions*. SME 2022, Chicago Center in Paris, Sept. 6–7, 2022.
- Gustave Cortal, Alain Finkel, Patrick Paroubek, and Lina Ye. *Natural language processing for cognitive analysis of emotions*. European Mathematical Psychology Group Meeting, Rovereto, Italy, Sept. 5–7, 2022.
- Alain Finkel. *The grid fera to understand and modify negative emotions*. 3rd International Conference on Developing Mathematical Resilience, July 1–2, 2022. Invited keynote.
- Alain Finkel. *Les lois de la pensée*. Colloque CITAC 2022, Lisbonne, Sept. 28–Oct. 2, 2022.
- Alain Finkel. *Manuel d'analyse cognitive des émotions : Théorie et applications*. Dunod, Paris, 2022.

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## 2021

- Benoît Barbot, Benedikt Bollig, Alain Finkel, Serge Haddad, Igor Khmelnitsky, Martin Leucker, Daniel Neider, Rajarshi Roy, and Lina Ye. *Extracting context-free grammars from recurrent neural networks using tree-automata learning and A search.\** ICGI 2021, pages 113–129, 2021.
- Michael Blondin, Matthias Englert, Alain Finkel, Stefan Göller, Christoph Haase, Ranko Lazic, Pierre McKenzie, and Patrick Totzke. *The reachability problem for two-dimensional vector addition systems with states*. J. ACM, 68(5):34:1–34:43, 2021.
- Benedikt Bollig, Cinzia Di Giusto, Alain Finkel, Laetitia Laversa, Étienne Lozes, and Amrita Suresh. *A unifying framework for deciding synchronizability*. CONCUR 2021, pages 14:1–14:18, 2021.
- Alain Finkel. *How to develop student IE to increase their success*. Colloque ENS-IISER, May 10–11, 2021.
- Alain Finkel. *Qu'est-ce qu'un fait ?* Colloque sur la post-vérité, IUF, Bordeaux, Oct. 5–6, 2021.
- Alain Finkel, Serge Haddad, and Igor Khmelnitsky. *Commodification of accelerations for the Karp and Miller construction*. Discrete Event Dynamic Systems, 31(2):251–270, 2021.
- Alain Finkel, Serge Haddad, and Igor Khmelnitsky. *Coverability, termination, and finiteness in recursive petri nets*. Fundamenta Informaticae, 183(1–2):33–66, 2021.
- Igor Khmelnitsky, Daniel Neider, Rajarshi Roy, Xuan Xie, Benoît Barbot, Benedikt Bollig, Alain Finkel, Serge Haddad, Martin Leucker, and Lina Ye. *Property-directed verification and robustness certification of recurrent neural networks*. ATVA 2021, pages 364–380, 2021.

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## 2020

- Michael Blondin, Alain Finkel, and Jean Goubault-Larrecq. *Forward analysis for WSTS, part III: Karp-Miller trees*. Logical Methods in Computer Science, 16(2), 2020.
- Benedikt Bollig, Alain Finkel, and Amrita Suresh. *Bounded reachability problems are decidable in FIFO machines*. CONCUR 2020, pages 49:1–49:17, 2020.
- Alain Finkel. *From well structured transition systems to program verification*. VPT/HCVS@ETAPS 2020, pages 44–49, 2020.
- Alain Finkel and Jean Goubault-Larrecq. *Forward analysis for WSTS, part II: complete WSTS*. Logical Methods in Computer Science, 8(3), 2012 (réédition 2020).
- Alain Finkel and Jean Goubault-Larrecq. *Forward analysis for WSTS, part I: completions*. Mathematical Structures in Computer Science, 30(7):752–832, 2020.

- Alain Finkel, Serge Haddad, and Igor Khmelnitsky. *Minimal coverability tree construction made complete and efficient*. FoSSaCS 2020, pages 237–256, 2020.
- Alain Finkel and M. Praveen. *Verification of flat FIFO systems*. Logical Methods in Computer Science, 16(4), 2020.
- T. Rabeyron and A. Finkel. *Consciousness, free energy and cognitive algorithms*. Frontiers in Psychology, 11:16275, 2020.
- T. Rabeyron and A. Finkel. *L'exploration des états subjectifs de la conscience par la micro-analyse*. Recherches en psychanalyse, 30(2):176–186, 2020.

## 2019

- Alain Finkel and Ekanshdeep Gupta. *The well-structured problem for Presburger counter machines*. FSTTCS 19, pages 41:1–41:15, Bombay, 2019.
- Alain Finkel, Serge Haddad, and Igor Khmelnitsky. *Coverability and termination in recursive Petri nets*. PETRI NETS 2019, pages 429–448, Aachen, 2019.
- Alain Finkel, Serge Haddad, and Igor Khmelnitsky. *Réification des accélérations pour la construction de Karp et Miller*. MSR'19, Angers, 2019.
- Alain Finkel and M. Praveen. *Verification of flat FIFO systems*. CONCUR 19, pages 12:1–12:17, Amsterdam, 2019.