Ignacio Fábregas Alfaro

Short CV

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§ Ignacio Fábregas
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Current position

since April
2023
Associate Professor, *School of Mathematics*, Department of Computer Science, Universidad Complutense de Madrid

Research interests

Logics, category theory in informatics, coalgebras, (bi)simulations, concurrency, process algebra, process semantics, axiomatizations, nominal structural operational systems.

Education

2006 - 2012 **PhD. Thesis**, *School of Mathematics*, Universidad Complutense de Madrid
Coalgebraic and Categorical techniques for the study of process semantics
Supervisors:David de Frutos Escrig and Miguel Palomino Tarjuelo.

2004 - 2006 **Master Thesis**, *School of Mathematics*, Universidad Complutense de Madrid
Master Thesis in Computer Science.

1999 - 2004 **Degree**, *School of Mathematics*, Universidad Complutense de Madrid
5-year degree in Mathematics.

Previous positions

2021 - 2023 **Assistant Professor**, *School of Informatics*, Department of Computer Science, Universidad Complutense de Madrid

2017 - 2020 **Postdoctoral Researcher**, *Imdea Software Institute*, Madrid (Spain)
Hired by ERC project *Mathador: Type and Proof Structures for Concurrent Software Verification*.
Supervisor: Aleksandar Nanevski.

2015 - 2016 **Postdoctoral Researcher**, *School of Computer Science*, Reykjavik University, Reykjavik (Iceland)
Hired at the RANNIS project *Nominal Structural Operational Semantics* (NoSOS).
Advisor: Luca Aceto.

2012 - 2013 **Postdoctoral Researcher**, *School of Informatics*, Department of Computer Science, Universidad Complutense de Madrid
Hired by the spanish national projects PROMETIDOS and DESAFIOS10

2006 - 2011 **Teaching Assistant**, *School of Informatics*, Department of Computer Science, Universidad Complutense de Madrid

Selected publications

- František Farka, Aleksandar Nanevski, Anindya Banerjee, Germán Andrés Delbianco and Ignacio Fábregas. *On Algebraic Abstractions for Concurrent Separation Logics*. ACM journal Proceedings of the ACM on Programming Languages 5, (POPL'21), 1–32. 2021.
- Aleksandar Nanevski, Anindya Banerjee, Germán Andrés Delbianco and Ignacio Fábregas. *Specifying concurrent programs in separation logic: morphisms and simulations*. ACM journal Proceedings of the ACM on Programming Languages 3, (OOPSLA'19), 161:1-161:30. 2019.
- Luca Aceto, Ignacio Fábregas, Carlos Gregorio-Rodríguez and Anna Ingólfsdóttir. *Logical characterisations, rule formats and compositionality for input-output conformance simulation*. Journal of Logical and Algebraic Methods in Programming, 106, 78-106. 2019.
- Luca Aceto, Ignacio Fábregas, Álvaro García-Pérez, Anna Ingólfsdóttir and Yolanda Ortega-Mallén. *Rule Formats for Nominal Process Calculi*. Logical Methods in Computer Science 15(4). 2019.
- Luca Aceto, Dario Della Monica, Ignacio Fábregas and Anna Ingólfsdóttir. *When are prime formulae characteristic?*. Theoretical Computer Science 777, 3-31. 2019.
- Luca Aceto, Ignacio Fábregas, Álvaro García-Pérez and Anna Ingólfsdóttir. *A unified rule format for bounded nondeterminism in SOS with terms as labels*. Journal of Logical and Algebraic Methods in Programming, Special issue on Metamodels for Process Languages, 92, 64-86. 2017.
- Luca Aceto, Ignacio Fábregas, Álvaro García-Pérez and Anna Ingólfsdóttir. *Rule Formats for Nominal Process Calculi*. CONCUR 2017. LIPIcs 85, 10:1–10:16, 2017.
- Luca Aceto, Dario Della Monica, Ignacio Fábregas and Anna Ingólfsdóttir. *When are prime formulae characteristic?*. MFCS 2015. Lecture Notes in Computer Science 9234, 76-88, 2015.
- Ignacio Fábregas, David de Frutos Escrig and Miguel Palomino. *Non-strongly Stable Orders Also Define Interesting Simulation Relations*. CALCO 2009. Lecture Notes in Computer Science 5728, 221-235, 2009.

Invited talks and research visits

Mar. 2017 **École Polytechnique (LIX)**, *Paris (France)*
Research visit and invited talk: *When are prime formula characteristic?*

Dec. 2013 **2nd PROMETIDOS-CM Winter School**, *Imdea Software Institute*, Madrid (Spain)
Invited talk: *Coalgebraic and Categorical Techniques for the Study of Process Semantics*

Sep. 2010 **Reykjavik University**, *Reykjavik (Iceland)*,
Research visit and invited talk: *Logics for Contravariant Simulations*

Program committee

- *19th International Conference on Relational and Algebraic Methods in Computer Science, (RAMICS 2021)*. Marseille (France), November, 2021. `https://ramics19.lis-lab.fr/index.html`.
- *Combined 25th International Workshop on Expressiveness in Concurrency and 15th Workshop on Structural Operational Semantics (EXPRESS-SOS 2018)*. Beijing (China) September 3, 2018. `http://eptcs.web.cse.unsw.edu.au/content.cgi?EXPRESSSOS2018`.