

Elias VENTRE

27/09/1990

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Curriculum Vitae

EDUCATION

- Since 2019 **INRIA Dracula & LBMC – PhD in applied mathematics.**
- *Stochastic hybrid processes for modeling gene expression at the single-cell level.*
- 2017-2019 **UCBL Lyon 1 – Master in applied mathematics, with highest honor (2/39).**
- 2013-2015 **ENSA Paris-Belleville – Master in Architecture.**
- *One-year exchange program in UC, Santiago de Chile (2014).*
- 2010-2013 **ESTP Paris – Master in Building Engineering.**
- 2008-2010 **Lycée Fénélon – Classes préparatoires aux grandes écoles.**
- 2008 **Lycée Louis Le Grand – High School Diploma, with honor.**

TEACHING & PROFESSIONAL ACTIVITIES

- Since 2019 **UCBL, Teaching assistant.**
- *In charge of the course of General Mathematics for 1st-year students.*
- 2018-2019 **LBMC, Internships in applied mathematics.**
- *Mathematical formulation of Waddington Landscape for a stochastic hybrid model of gene expression (4 months).*
 - *Computation of transfer entropy for a Piecewise Deterministic Markovian Process (1 month).*
- 2015-2017 **SYNTESIA, Project manager in Building Information Modeling – 22 months.**
- 2013 **ARTER, Engineering of ephemeral art – 6 months.**

LANGUAGES

French	Mother tongue.
English & Spanish	Fluent.
Informatics	Python & C, Latex.

PUBLICATIONS

- bioRxiv*, 2022 **Evidence for close molecular proximity between reverting and undifferentiated cells**
Souad Zreika, Camille Fourneaux, Elodie Vallin, Laurent Modolo, Rémi Seraphin, Alice Moussy, Elias Ventre, Matteo Bouvier, Anthony Ozier-Lafontaine, Arnaud Bonnaïffoux, Franck Picard, Olivier Gandrillon, Sandrine Giraud
- In Silico Biology*, 2021 **Reverse engineering of a mechanistic model of gene expression using metastability and temporal dynamics**
Elias Ventre
- J. Math. Biol.*, 2021 **Reduction of a stochastic model of gene expression: Lagrangian dynamics gives access to basins of attractions as cell types and metastability**
Elias Ventre, Thibault Espinasse, Charles-Edouard Bréhier, Vincent Calvez, Thomas Lepoutre, Olivier Gandrillon

TALKS & POSTERS

01/2022	Université de Lyon, MMCS group – Lyon.
12/2021	NETBIOS research group – virtual.
12/2021	MAMОВI research group – Paris.
06/2021	Université de Lorraine, Probability group – Nancy.
05/2021	SMAI, Congress – Poster.
12/2020	SinCellMod-2020 – Virtual.
10/2020	ANR SingleStatOmics – Virtual.
02/2020	CIRM, Research School – Poster.
10/2019	INRIA-Bio Workshop – Lyon.

PERSONAL

Violin and Guitar.

Acting in lay theatre.

Tennis in competition, hiking.