

DUROUX DIANE

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Liège, 4000, BELGIUM

EDUCATION

ETH ZURICH

Postdoc - ML-based treatment optimization and clinical decision support.
ETH AI center

Zurich, Switzerland

2023

UNIVERSITY OF LIEGE

PhD - Heterogeneity between networks in systems biomedicine: detection and remediation.
BIO3 - GIGA-R Medical Genomics
Marie Curie Innovative Training Network "Machine Learning Frontiers in Precision Medicine".
ELLIS PhD student

Liège, Belgium

2018 - 2022

UNIVERSITY OF RENNES

Master of Bioinformatics.

Rennes, France

2017-2018

ENSAI, National School for Statistics and Data Analysis

Master of Science in Statistics and Biostatistics equivalent (Diplôme d'ingénieur).

Rennes, France

2015-2018

HONG KONG UNIVERSITY

Study abroad, coursework in Data Mining and Big Data.

Hong Kong

2017

UNIVERSITY OF RENNES

Bachelor in mathematics.

Rennes, France

2015-2016

RESEARCH STAY

ROCHE

Roche Diagnostics GmbH

Individual-graph-based multi-modality integration for cancer subtyping.

Online

January - April 2022

ETH ZURICH

Machine Learning & Computational Biology Lab

Graph-based models for gene expression data.

Online

June - August 2021

UNIVERSITY OF CALIFORNIA SAN FRANCISCO

Department of Psychiatry, Institute for Human Genetics

Estimated variance explained by gene-gene interactions in Autism Spectrum Disorder.

San Francisco, USA

April - September 2018

PONTCHAILLOU HOSPITAL

Department of Molecular Genetics and Medical Genomics

Feasibility of blood testing for tracking non-small cell lung cancer.

Rennes, France

July - August 2017

PUBLICATIONS

1. Diane Duroux, Kristel Van Steen. 2023
netANOVA: novel graph clustering technique with significance assessment via hierarchical ANOVA.
Briefings in Bioinformatics, 24(2), bbad029
2. Andrew Walakira, Junior Ocira, Diane Duroux, Ramouna Fouladi, Miha Moškon, Damjana Rozman, Kristel Van Steen. 2022
Detecting gene–gene interactions from GWAS using diffusion kernel principal components
Bmc Bioinformatics, 23(1), 1-18.
3. Renzo J.M. Riemens, Gunter Kenis, Jennifer Nolz, Sonia C. Susano Chaves, Diane Duroux, ..., Daniël L.A. van den Hove. 2022
Targeted methylation profiling of single laser-capture microdissected post-mortem brain cells by adapted limiting dilution bisulfite pyrosequencing (LDBSP).
International Journal of Molecular Sciences.
4. Fentaw Abegaz, François Van Lishout, Jestinah Mahachie John, Kris Chiachoompu, Archana Bhardwaj, Diane Duroux, ..., Kristel Van Steen. 2021.
Performance of model-based multifactor dimensionality reduction methods for epistasis detection by controlling population structure.
BioData mining, 14(1), 1-20.
5. Diane Duroux*, Héctor Climente-González*, Chloé-Agathe Azencott, Kristel Van Steen. 2020
Interpretable network-guided epistasis detection.
GigaScience, 11.
6. Diane Duroux, Héctor Climente-González, Lars Wienbrandt, Kristel Van Steen. 2020
Network Aggregation to Enhance Results Derived from Multiple Analytics.
Maglogiannis I., Iliadis L., Pimenidis E. Artificial Intelligence Applications and Innovations. AIAI 2020. IFIP Advances in Information and Communication Technology, vol 583. Springer, Cham.
7. Diane Duroux, Hector Climente-González, Aldo Camargo, Lars Wienbrandt, David Ellinghaus, Chloe-Agathe Azencott, Kristel Van Steen. 2019
Improving Efficiency in Epistasis Detection with a Gene-based Analysis Using Functional Filter
The 2019 Annual Meeting of the International Genetic Epidemiology Society. Genet. Epidemiol., 43:864–925, doi: 10.1002/gepi.22256.

* Equal contribution

PRESENTATIONS

1. ISMB/ECCB 2023 (Poster) Lyon, France
Enhancing Disease Subtype Prediction through Network-Driven Multi-Modality Fusion 2023
2. MLFPM symposium (Oral presentation) Munich, Germany
Heterogeneity between networks in systems biomedicine 18 October 2022
3. Roche R&D fair (Poster) Online
Graph-based multi-modality integration for prediction of prostate cancer severity 2022
4. ISCB 42 Lyon (Poster) Online
Patient heterogeneity assessment via network-based ANOVA. 21 July 2021
5. TranSYS training school (Oral presentation). Online
Comparison of heterogeneous networks representing complex data analysis problems. 24 November 2020

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| 6. AIAI 2020 (Oral presentation) | Online |
| Network aggregation to enhance results derived from multiple analytics. | 5-7 June, 2020 |
| 7. IGES 2019 (Poster) | Houston, USA |
| Improving efficiency in epistasis detection with a gene based analysis using functional filters. | 12-14 October 2019 |

TEACHING

Learning from data - Computational approaches to genetic data
Teaching assistant - Practice session

Spring, 2021
University of Liège

OUTREACH EVENT

Competition "My PhD in 180 seconds", national finalist.

March, 2021

OTHER

Reviews for the journal Briefings in Bioinformatics