Paul Banse

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Formation

2021	**Quantitative Viral Dynamics**, ENS Ulm, France. François Blanquart & Joshua Weitz
2020-	**PhD thesis**, INRIA Lyon, France. supervised by Guillaume Beslon in Beagle Team
2016–2019	**Studies in Magistère Informatique et Télécomunication**, *Ens Rennes*, Rennes.
2013–2016	**Prep School in Mathematics, Physics and Computer science**, *Lycée Thiers*, Marseille.
2012–2013	**Baccalauréat Diploma in Science, biology option: latin and reinforced english**, *Lycée Louis Barthous*, Pau.

Scientific research

Paper

2021	**Alife**, Simulating short- and long-term evolutionary dynamics on rugged landscapes. L Trujillo, **P Banse**, G Beslon

Paper under review

2022	**PLOS Computationnal Biology**, Getting higher on rugged fitness landscapes. L Trujillo, **P Banse**, G Beslon

Talks

2021	**CCS**, Evolutionary escape from local fitness peaks through inversion mutations. L Trujillo, **P Banse**, G Beslon

Posters

Jun 2021	**EMBL Predicting Evolution**, Leveraging Evolvability to Predict Molecular Evolution. **P Banse**, T Grohens, G Beslon
Jun 2021	**MCEB 2021**, The Danaides genomes. M.Foley, **P Banse**, V Lezaud, J Rouzaud-Cornabas, G Beslon
Nov 2021	**EvoLyon 2021**, The Danaides genomes. M.Foley, **P Banse**, V Lezaud, J Rouzaud-Cornabas, G Beslon

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Experience

Research Internships

2020	**Computational Biology**, I2SysBio Valencia, Spain. 21 weeks, supervised by Santiago Elena in Evolutionary Systems Virology Laboratory
2019-2020	**Computational Biology**, INRIA Lyon, France. 24 weeks, supervised by Guillaume Beslon in Beagle Team
2019	**Artificial Evolution**, INRIA Lyon, France. 21 weeks, supervised by Guillaume Beslon in Beagle Team

2018	**Machine Learning**, *University of Alberta*, Canada.
	10 weeks, supervised by Ryan Hayward in Hex research group
2017	**Crowd Simulation**, INRIA Rennes, France.
	7 weeks, supervised by Julien Pettré in LAGADIC team

Organizational participation

2022	**Member of gender equality commitee**, *Lyon*, France.
	LIRIS
2022	**Staff representative in Inria research center**, *INRIA Lyon*, France.
	Comité de Centre
2022	**Organisation staff member**, *INSA Lyon*, France.
	Journée de l'ED Infomaths
2021	**Organisation staff member**, *INSA Lyon*, France.
	GDR BIM
2021	**Organisation staff member**, *ENS Lyon*, France.
	EvoLyon
2019	**Organisation staff member**, *INSA la Rotonde, Lyon*, France.
	EvoLyon
2019	**Organisation staff member**, *Manufacture des tabacs, Lyon*, France.
	Mathematical Models in Ecology and Evolution

Teaching and supervising

2022	**Internship supervising: Yanis Sindt-baret**, *Inria Lyon*, France.
	3BS
	Project tutelage in Machine Learning, *INSA Lyon*, France.
	3BS
	Introduction to programming, *INSA Lyon*, France.
	3BS
	Architecture of circuits, *INSA Lyon*, France.
	3IF
	Reproducibility in Research, *INSA Lyon*, France.
	5BIM
	Session of information about PhD, *INSA Lyon*, France.
	4-5BIM & 5IF
	Project tutelage in Machine Learning, *INSA Lyon*, France.
	5BIM
	Internship tutelage, *INSA Lyon*, France.
	5BIM
2020	**Introduction to critical thinking & logical reasonning**, *Collège d'Arsacq*, France.
	6ème-5ème
2016–2019	**Computer science unplugged activities**.

Languages

French	Native
English	B1 Level
Spanish	A2 Level

Computer Science

Languages

Advanced: python, CamL, LaTeX

Good: Isabel HOL, C , C++, Java, Scala

Platforms	Git Lab	Git Hub
	Overleaf	EasyChair

Computer science fields and interests

Machine Learning: RandomForest, Neural Networks, Boosting

Game theory: Basic games, auctions, routings

Distributed Algorithmic: graphs, consensus

Algorithmic: graphs, automatas, Tree, sorts

Statistics: GLM, Anova, PCA, Bootstrap

Theory of complexity: P, NP, NL, PSPACE, EXPTIME

Graph theory: scale free, small worlds, random graphs

Information theory: entropy, channels, codes

Miscellaneous

Volunteer work

2019 **Collaborative cultural work about Leonardo Da Vinci**, *Université de Lyon*, Festival des Lumières.

2014–2019 **volunteer work in cultural festivals**.

Interests

Hobbies Board games, role playing games, video games and acting

Family Biology, teaching, beekeeping