Cedric Perret

Postdoctoral Research Associate in social evolution

Email: cedric.perret.research@gmail.com
Twitter: @Cedric_Perret13
Website: https://cedricperret.github.io/
Research gate: Cedric_Perret

Education and training

2016-2019 **Ph.D."The evolutionary iron law of oligarchy"**, *Edinburgh Napier University, UK*
Under the supervision of Simon T. Powers and Emma Hart
Examiners: Thomas Currie (Exeter University, UK) and Andy Gardner (University of St Andrews, UK).

2018 **Santa Fe Complex Systems Summer School**, *Santa Fe Institute, USA*
Information theory, Non-linear dynamics, Network theory, Machine learning, Human evolution

2016 ***MSc in Evolutionary Biology and Ecology*****,** *University of Montpellier, France*
Modeling in evolutionary biology, Advanced Biostatistics, Ecology, Population genetics, Quantitative genetics

2013 **MSc (1st year) in Ecology and Environment,** *State University of New Paltz, USA*
Biostatistics, Seminar in evolutionary studies, Biogeography

2012 **BA in Biology and Ecology**, *University of Franche-comte, Besancon, France*
Ecology, Formal and Population genetics, Biostatistics, Animals and plants Biology

Research Experience

2020/09 - now **Postdoctoral research associate on the evolution of hierarchy and institutions,** *Exeter University, UK*
Under the supervision of Tom Currie

2020/01 - 07 **Postdoctoral research associate on direct and indirect reciprocity**, *Teeside University, UK*
Under the supervision of The Anh Han

2016 **Internship on modeling the evolution of resistance against cancer in wildlife species**
Institute of Research for Development, University of Montpellier, France
Under the supervision of Frederic Thomas and Benjamin Roche

2015 **Internship on the development of a computer tool for experimentations in cultural evolution**
Institute of Evolutionary Sciences of Montpellier, University of Montpellier, France
Under the supervision of Jean-Baptiste André and Nicolas Claidière

Core skills

***Programming language skills*:**

- Proficient in Java, R, Mathematica, Python
- Efficient in Bash, Markdown

Computers skills:

- Proficient in LaTeX, Mendeley, Github, Microsoft office programs
- Efficient in web design (Wordpress, github.io)

Language skills:

- **French**: C2 (native language)
- **English:** C1 (TOEFL 2016 : 583/677)
- **Spanish:** B1

European driving license

Peer-reviewed publications:

First author:

2020 **From disorganized equality to efficient hierarchy: how group size drives the evolution of hierarchy in human societies**
C.Perret, E.Hart and S.T. Powers
Proceedings of the Royal Society B: Biological Sciences
https://royalsocietypublishing.org/doi/full/10.1098/rspb.2020.0693?af=R

2020 **Predation shapes the impact of cancer on population dynamics and the evolution of cancer resistance**

C.Perret, C. Gidoin, B. Ujvari, F. Thomas and B. Roche
Evolutionary Applications - https://onlinelibrary.wiley.com/doi/abs/10.1111/eva.12951

2019 **Being a leader or being the leader: The evolution of institutionalised hierarchy.**
C.Perret, E.Hart and S.T. Powers
ALIFE 2019: The 2019 Conference on Artificial Life. MIT Press
https://www.mitpressjournals.org/doi/pdf/10.1162/isal_a_00158

2018 **Can justice be fair when it is blind? How social network structures promote or prevent the evolution of despotism**.
C. Perret, S.T. Powers, J. Pitt and E. Hart
ALIFE 2018: The 2018 Conference on Artificial Life. MIT Press
https://www.mitpressjournals.org/doi/abs/10.1162/isal_a_00058

2017 **Emergence of hierarchy from the evolution of individual influence in an agent-based model**
C. Perret, S.T. Powers and E. Hart
Proceedings of the European Conference on Artificial Life 2017. MIT Press
http://cognet.mit.edu/proceed/10.7551/ecal_a_058

Co-author:

2020 **When to (or not to) trust intelligent machines: Insights from an evolutionary game theory analysis of trust in repeated games**
T.A. Han, C. Perret, Simon T. Powers
Cognitive Systems Research

2018 **Trusting Intelligent Machines: Deepening trust within socio-technical systems**
P. Andras, L. Esterle, M. Guckert, T.A. Han, P.R. Lewis, K.Milanovic, T.Payne, C. Perret, J. Pitt, S.T. Powers, N. Urquhart and S. Wells
IEEE Technology and Society Magazine - https://ieeexplore.ieee.org/document/8558724

Other outputs:

2020 **Ph.D. Thesis: The Iron Law of Oligarchy**
C.Perret
https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.818588

2019 **A theoretical investigation of transgenerational effects of population-scale disaster on prevalence of schizophrenia.**
C. Gunaratne, S. Jankowski, C. Perret, J. Tuominen, M. Wadl
Santa Fe project report

2019 **Using an opinion formation model to investigate the effect of leaders on collective decision-making**
C.Perret, S.T. Powers, E.Hart
Extended abstract - Workshop on Agent-Based Modelling in Human Behaviour (ABMHuB 2019)

Research dissemination:

International conferences:

Oral presentation at:

- ALIFE 2019: The Conference on Artificial Life, *Newcastle, UK* - https://2019.alife.org
- Evolution 2018: Joint Congress on Evolutionary Biology, *Montpellier, France* – https://www.evolutionmontpellier2018.org
- ECAL 2017: European Conference on Artificial Life, *Lyon, France* - https://project.inria.fr/ecal2017/

Poster presentation at:

- Evolution 2018: Joint Congress on Evolutionary Biology, *Montpellier, France* – https://www.evolutionmontpellier2018.org

Participation to:

- ESEB 2017: Congress of the European Society for Evolutionary Biology**,** *Groningen, Netherlands* – https://eseb.org/congresses/
- PPSN 2016: 14th International Conference on Parallel Problem Solving from Nature, *Edinburgh, UK* - http://www.ppsn2016.org/conference/

Local conferences:

Oral presentation at:

- 2019 Scottish Informatics and Computer Science Alliance (SICSA) pre evolutionary computing day, *Stirling, UK*
- 2019 School of Computing Research Conference, *Edinburgh Napier, UK*
- 2018 School of Computing Research Conference, *Edinburgh Napier, UK*
- 2016 MEE: Models in Ecology and Evolution Seminar, *Montpellier, France*

Poster presentation at:

- 2017 Scottish Informatics and Computer Science Alliance (SICSA) PhD Conference, *Dundee, UK*
- 2017 Edinburgh Napier University Research Conference, *Edinburgh Napier, UK*

Participation to:

- 2019 Scottish Informatics and Computer Science Alliance (SICSA) PhD Conference, *Stirling, UK*

Workshops:

- TIM 2020: Workshop on Trust in Intelligent Machines, *Online*
- ABMHUB 2019: Workshop on Agent-Based Modelling in Human Behaviour, *ALIFE 2019*, *Newcastle, UK* - http://abmhub.braintree.com/
- EHB 2019: Workshop on Evolution of Human Behaviour: Using theory to address societal challenges, *at ALIFE 2019, Newcastle, UK* - https://ehbalife.github.io/
- TIM 2019: Workshop on Trust in Intelligent Machines, *University of Gießen, Germany*
- EDI 2019: Workshop on the Evolution and Dynamics of Institutions, *Edinburgh Napier University, UK*
- TIM 2018: Workshop on Trust in Intelligent machines, *Edinburgh Napier University, UK* - *https://tim2018.wordpress.com/*

Seminar presentations:

2019 **School of Biology seminar**, Department of Ecology and Evolution, *University of Lausanne, Swiss*
2018 **Pr.Lehmann's team seminar**, Department of Ecology and Evolution, *University of Lausanne, Swiss*
2018 **Pr.Gardner's team seminar**, School of Biology, *University of St Andrews, UK*
2018 **Dr.Gross's team seminar**, Collective dynamics group, *University of Bristol, UK*
2016, 2018 **School of Computing seminars**, School of Computing, *Edinburgh Napier University, UK*

Academic event organisation:

Organisation of international workshops and conferences:

Lead organiser of:

- EHB 2019: Workshop Evolution of Human Behaviour: Using Theory to Address Societal Challenges, *at ALIFE 2019 conference, Newcastle.* https://ehbalife.github.io/
- EDI 2019: Workshop on the Evolution and Dynamics of Institutions, *Edinburgh Napier University.*

Co-organiser of:

- TIM 2018: Workshop on Trust in Intelligent Machines, *Edinburgh Napier University.* *https://tim2018.wordpress.com/*

Member of local organiser committee of:

- PPSN 2016: 14th International Conference on Parallel Problem Solving from Nature, *Edinburg, UK.*

Organisation of seminar series:

Co-organiser of:

2017-2018 • School of Computing Seminar Series, *Edinburgh Napier University*
2017 • PhD Masterclasses (one workshop and a seminar series), *Edinburgh Napier University*

Grants

Lead applicant to:

2019 • PhD impact improvement Funds
  - **Three months of PhD stipend** funded by Edinburgh Napier University

2018 • Researcher Development Funds for «Workshop on the Evolution and Dynamics of institutions »
  - **£1500** funded by the Research Innovation Office, *Edinburgh Napier University*

2018 • Funds to participate to Santa Fe Complex System Summer School
  - **£1000** funded by Small Project & Mobility Grants, *Edinburgh Napier University*
  - **£500** funded by SISCA summer school bursary, *Scottish Informatics & Computer Science Alliance*

2018 • Public engagement funds for « SciVid: Animated videos to support wider scientific communication»
  - **£2500** funded by *Edinburgh Napier University*

Co-applicant to:

2017 • Researcher Development Funds for « School of Computing Masterclasses »
  - **£800** funded by the Research Innovation Office, *Edinburgh Napier University*

2017 • Researcher Development Funds for « Workshop on Trust in Intelligent Machines»
  - **£1500** funded by Research Innovation Office, *Edinburgh Napier University*

2016 • PhD studentship
  - **Payment of full-time tuition fees and stipend for 3 academic years**, *Edinburgh Napier University*

Grants reviewing:

2019 Member of review panel for the attribution of Researcher Development funds, *Edinburgh Napier University*

Honours and Awards:

2019 **Best presentation Awards (3nd year PhD)** at the 2019 Edinburgh Napier School Conference
2018 **Best presentation Awards (2nd year PhD)** at the 2018 Edinburgh Napier School Conference
2017 **Best poster Awards** at the 2017 Edinburgh Napier University Conference

Professional activities:

Public engagement:

2018 SciVid Project: Animated videos to support wider scientific communication, *Edinburgh Napier University*
- Lead organiser of the project
- Organisation of a one-day workshop on science scriptwriting
- Two months supervision of intern for the creation of an animated video on one of my published research

2017, 2018 Explorathon**,** *Edinburgh*
- Presentation of the field of artificial evolution during two open public events

2017 Cyber academy workshop**,** *Edinburgh Napier University*
- Introduction of Colinton Primary school to robotics and programming

Teaching:

2017, 2018 Two classes in the module "Multi-Agent Systems", *Edinburgh Napier University*
2018 Two months student supervision for the SciVid Project*, Edinburgh Napier University*

Peer-reviews:

2018-2019 8 Peer-reviews for journals including Proceedings of the Royal Society B, Evolutionary Human Sciences, Scientific reports, Plos One, PeerJ and Journal of Mathematical Psychology

Others:

2019 Editor assistant for the Evolutionary Computation Journal, *Edinburgh Napier University*

Referees

Simon Powers, Lecturer
PhD supervisor,
Edinburgh Napier University, Edinburgh
email: S.Powers@napier.ac.uk

The Anh Han, Associate Professor
Postdoc supervisor,
Teeside University, Middlesbrough
email: T.Han@tees.ac.uk

Jeremy Pitt, Professor
Collaborator,
Imperial College of London, London
email: j.pitt@imperial.ac.uk

Benjamin Roche, Researcher Director
Master supervisor,
Research Institute for Development, Mexico City
email: benjamin.roche@ird.fr