# Matteo Tomasini

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## Experience

### Research

Sep 2019 – Present **Postdoctoral research associate**, *Development of methods for the statistical inference from patterns of isolation by distance*, Department of Integrative Biology, Michigan State University, Principal Investigator: Prof. G. Bradburd.

Feb 2015 – Jun 2019 **PhD student**, On the theory of rapid adaptation in the presence of gene flow, Interfaculty Bioinformatics Unit, Universität Bern, Supervisors: Dr. S. Peischl and Prof. L. Excoffier.

Sep 2013 – Oct 2014 **MSc student**, Effect of snow covering and ocean mixed layer on the irreversibility of sea ice retreat, Institut des Sciences de l'Environnement, Université de Genève, Supervisors: Dr. M. Brunetti and Dr. S. Marshall.

## **Teaching**

Sep 2017 – Jun 2019 **Substitute lecturer**, *Applied Biostatistics I and II*, Universität Bern, Main lecturers: Dr. A. Hauser, Dr. S. Peischl.

Substitution of main lecturer in case of absence.

Sep 2015 – Jun 2019 **Teaching assistant**, *Applied Biostatistics I and II*, Univesität Bern, Main lecturers: Dr. A. Hauser, Dr. S. Peischl.

Management of exercise sessions and support for MSc students, correction of exercise

Sep 2015, 2016, 2017, **Teaching assistant**, *Introduction to R*, Univesität Bern, Main lecturers: 2018 and 2019 Prof. L. Excoffier, Dr. S. Peischl, Dr. V. Sousa.

Teaching assistant during a 5 days introductory course to the R language.

### Miscellaneous

Mar 2012 – Present **Co-admin**, *Meccanica Quantistica: gruppo serio*.

Co-administrator and moderator of the largest Facebook page of science dissemination in Italian language ( $\sim 29'600$  subscribers).

Aug 2009 – Apr 2019 Chief Sergeant Major, Swiss Army.

Responsible for logistics in an artillery battery – in particular personnel, equipment, ammunition, health service and barracks administration – during the yearly one month service.

Nov 2015 – Jun 2018 **Head of refereeing**, *Swiss Tchoukball*.

Head of the refereeing commission and member of executive committee of the Swiss federation of tchoukball; development of refereeing in the sport and referees' formation.

## Education

Feb 2015 – Jun 2019 PhD studies in ecology & evolution, Universität Bern, Supervisors:

Dr. S. Peischl and Prof. L. Excoffier.

Relevant courses and workshops: best practices in programming, introduction to markov models, machine learning. Main topic: theoretical population genetics.

Sep 2012 – Oct 2014 MSc in physics (orientation theoretical physics), Université de Genève.

Relevant courses: cosmology, group theory, introduction to nanoelectronics, introduction to perturbative methods, non-linear dynamics, phase transitions and critical phenomena, quantum field theory.

Sep 2009 – Aug 2012 **BSc in physics**, *Université de Genève*.

Relevant courses: algebra, calculus; analytical mechanics, electrodynamics, experimental physics, general relativity, quantum mechanics, statistical mechanics, thermodynamics; introduction to C++.

## **Publications**

2020 **M. Tomasini**, S. Peischl, *When does gene flow facilitate evolutionary rescue?*, bioRxiv, 622142, ver. 5 peer-reviewed by Peer Community in Evolutionary Biology

2018 **M. Tomasini**, S. Peischl, *Establishment of locally adapted mutations under divergent selection*, Genetics, 209 (3), 885 – 895

## Oral presentations

Jun 2019 Effects of gene flow and fragmentation on evolutionary rescue, Modelling Ecology & Evolution Zurich 2019, Zurich

Aug 2018 Evolutionary rescue in structured habitats (poster), Second Joint Congress of Evolutionary Biology, Montpellier

### IT skills

Regular user Python, R; SLiM, STAN; LATEX; git

Intermediate user Mathematica; Bash, C++
Basic knowledge Julia; Maple; Jekyll, Django
Operating systems **Ubuntu**; Linux Mint, Windows

Editors Neovim; IDLE, PyCharm, VSCode

## Languages

written / spoken Italian Native language

written / spoken French Full professional working proficiency written / spoken English Full professional working proficiency

spoken German Limited working proficiency

### References

Current lab PI Prof. Gideon Bradburd

PhD supervisor Dr. Stephan Peischl

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