GIORGIO BIANCHINI

University of BRISTOL

https://orcid.org/0000-0003-0223-0339
http://github.com/arklumpus

Via S. Cesario 27
73100 Lecce (LE) – Italy
+39 3937394574
+44 (0)7712200146

giorgio.bianchini@bristol.ac.uk
https://www.linkedin.com/in/giorgiobianchini

PUBLICATIONS

2021

Giorgio Bianchini, Patricia Sánchez-Baracaldo
SMAP: EVOLUTION OF INDEPENDENT, DEPENDENT AND CONDITIONED DISCRETE CHARACTERS IN A BAYESIAN FRAMEWORK
Methods in Ecology and Evolution, 2021, DOI: 10.1111/2041-210X.13540

2021

B. David A. Naafs, Giorgio Bianchini, Fanny M. Monteiro, Patricia Sánchez-Baracaldo
THE OCCURRENCE OF 2-METHYLHOPANOIDS IN MODERN BACTERIA AND THE GEOLOGICAL RECORD
Geobiology (in press), 2021, DOI: 10.1111/gbi.12465

2021

Patricia Sánchez-Baracaldo, Giorgio Bianchini, Jamie D Wilson, Andrew H Knoll
CYANOBACTERIA AND BIOGEOCHEMICAL CYCLES THROUGH EARTH HISTORY
Trends in Microbiology, 2021, DOI: 10.1016/j.tim.2021.05.008

2019

Patricia Sánchez-Baracaldo, Giorgio Bianchini, Andrea Di Cesare, Cristiana Callieri, Nathan AM Chrismas
INSIGHTS INTO THE EVOLUTION OF PICOCYANOBACTERIA AND PHYCOERYTHRIN GENES (MPEBA AND CPEBA)
Frontiers in microbiology, 2019, DOI: 10.3389/fmicb.2019.00045

2017

Patricia Sánchez-Baracaldo, Giorgio Bianchini, John P Huelsenbeck, John A Raven, Davide Pisani, Andrew H Knoll
REPLY TO NAKOV ET AL.: MODEL CHOICE REQUIRES BIOLOGICAL INSIGHT WHEN STUDYING THE ANCESTRAL HABITAT OF PHOTOSYNTHETIC EUKARYOTES
Proceedings of the National Academy of Sciences, 2017, DOI: 10.1073/pnas.1717417114

SOFTWARE AND LIBRARIES

TREEVIEWER
Cross-platform software to draw phylogenetic trees.

SMAP
Evolution of Independent, Dependent and Conditioned discrete characters in a Bayesian framework.

TREENODE
C# and R library to read, write and manipulate phylogenetic trees.

VECTSHARP
A light library for C# vector graphics.

MUPDFCORE
Multiplatform .NET Core bindings for MuPDF.

EDUCATION

2017 – TO DATE

University of Bristol – Bristol, UK
PhD PHYSICAL GEOGRAPHY
THESIS: Bayesian methods using genomic data to gain insights into the history of biogeochemical cycles

> **Supervisors:** Dr. Patricia Sánchez-Baracaldo and Dr. Fanny Monteiro

2015 – 2017

University of Pisa – Pisa, Italy
MS CONSERVATION AND EVOLUTION, 110/110 cum laude
(GPA: 29.52/30)
DISSERTATION: Analysis of the applicability of miRNA clusters as phylogenetic markers, through the development of a method to identify the sequences that best predict a cladogram

> **Supervisors:** Prof. A. Cellerino (SNS) and Dr. R. Marangoni (Unipi)

2012 – 2017

Scuola Normale Superiore – Pisa, Italy
ALLIEVO ORDINARIO (STUDENT) of the Faculty of Mathematical and Natural Sciences – Biology

Scuola Normale Superiore (SNS) is a very prestigious and selective (only about 5 Biology students admitted every year) Italian University Institution based on the college model, planning a parallel and complementary career with respect to the University of Pisa. Every year, an SNS student has to respect academic duties

such as timing, additional exams, advanced lectures, research work from very early years and an average exam grade of 27 out of 30 (no exam grade below 24/30). Students of SNS do not pay any fee — it is a 5 years honor scholarship - and the SNS provides its students with all of the basic services, together with a little stipend.

2012 – 2015

University of Pisa — Pisa, Italy
BS BIOLOGICAL SCIENCES, 110/110 cum laude (GPA: 29.07/30)

DISSERTATION: Convergent evolution in three-spined stickleback populations through regulatory modifications in development-related genes

Supervisors: Prof. A. Cellerino (SNS) and Prof. M. Andreazzoli (Unipi)

WORKSHOPS AND CONFERENCES

2021

Heinrich Heine Universität Duesseldorf — Online
MATHEMATICAL, INFERENTIAL AND COMPUTATIONAL PHYLOGENOMICS (MIC-PHY) MEETING 2021
Contributed talk: "sMap: Evolution of independent, dependent and conditioned discrete characters in a Bayesian framework"

2020

Heinrich Heine Universität Duesseldorf — Online
CYANO2020
Early Career Researcher Summer School on Cyanobacteria

2018

University of Bristol — Bristol, UK
USING IMMERSIVE GAMES TO EXPLORE DATA

2018

University of Bristol — Bristol, UK
ANALYSING MACROEVOLUTIONARY PROCESSES USING REVBAYES

2016

Marine Biological Laboratory — Woods Hole (MA)
WORKSHOP ON MOLECULAR EVOLUTION

MBL's Workshop on Molecular Evolution is the most prestigious workshop serving the field of evolutionary studies. Founded in 1988, it is the longest-running workshop if its kind and it has earned worldwide recognition for its rich and intensive learning experience. Students work closely with internationally-recognized scientists, receiving high-level instruction in the principles of molecular evolution and evolutionary genomics, advanced training in statistical methods best suited to modern datasets, and hands-on experience with the latest software tools (often from the authors of the programs they are using).

LAB EXPERIENCE

2016 – 2017

[Bio@SNS laboratory](#)
SIX-MONTH INTERNSHIP
Sequencing of miRNA clusters from Cyprinodontiform fish samples.

Supervisor: Prof. A. Cellerino

2014 – 2015

[Bio@SNS laboratory](#)
SIX-MONTH INTERNSHIP
Reconstruction, by molecular techniques and conserved miRNAs, of the phylogeny of several species of the *Nothobranchius* genus

Supervisor: Prof. A. Cellerino

AWARDS

2019

Bristol – UK
NATURAL SYSTEMS AND PROCESSES POSTER SESSION (NSPPS)
3rd prize (poster title: "Cyanobacteria and the geological record of oxygen: insights from the evolution of salt tolerance")

2012

Singapore – Republic of Singapore
INTERNATIONAL BIOLOGY OLYMPIAD
Silver medal

2009

Taipei – Taiwan
INTERNATIONAL EARTH SCIENCE OLYMPIAD
Bronze medal
International Team Field Investigation best presentation award

ADDITIONAL COLLABORATIONS

2017 – TO DATE

INTERNATIONAL BIOLOGY OLYMPIAD
Jury Member for Italy

2016 – TO DATE

ANISN
Alumnus, member and webmaster of the Italian National Association of Natural Sciences Teachers (ANISN)

The [National Association of Natural Sciences Teacher](#) (Associazione Nazionale Insegnanti di Scienze Naturali, ANISN) is an association of over 1000 between Natural Sciences teachers and young members (former winners of the national and international Olympiads for Natural Sciences), which is accredited by the Italian Ministry of Education as a teacher formation body and is in charge of organizing the National Olympiads for Natural Sciences (Biology and Earth Science), which select 4 amongst all of the participating Italian students to compete in the International Biology and Earth Science Olympiads.

2013 – TO DATE	Active collaboration with the National Association of Natural Sciences Teachers for the creation of questions for the National Olympiads for Natural Sciences
2011	Modena – Italy **INTERNATIONAL EARTH SCIENCE OLYMPIAD** Staff member

OUTREACH ACTIVITIES

2019	Royal Society, London – UK **THE SWEET WORLD OF MICROBES** Summer Science Exhibition Lates 2019
2018	Royal Society, London – UK **THE SWEET WORLD OF MICROBES** Summer Science Exhibition Lates 2018
2018	Bishop Road Primary School, Bristol – UK **OUTREACH EVENT**

INTERESTS AND ADDITIONAL SKILLS

I contributed to a review for Science Advances.

In 2018/2019 I organised group meetings and seminars for the BRIDGE research group in Bristol and attended multiple seminar series at the University of Bristol.

IT/TECHNOLOGY

I have experienced knowledge of the **C#** programming language, of the **ECMAScript**/**Javascript** scripting language and of **HTML** and **CSS,** and basic knowledge of the **Java** and **R** programming languages. I have occasionally successfully used other programming/scripting languages for specific tasks (**PHP, Python, R, C/C++** and **Bash**). I have extensive knowledge of Microsoft Office programs and I can write LaTeX documents. I have achieved the European Computer Driving License (ECDL). I have built small projects using the Raspberry Pi SBC and the Arduino platform.

LANGUAGES

I am fluent in Italian (mother tongue) and English (written and oral); I have basic German conversation and writing skills.

14/01/2017	Pisa – Italy (Rome IELTS Administrative Center) **IELTS** CERTIFICATE *Test report form number 16IT004501BIAG264A* Average score 8.5 (Reading 9.0, Listening 9.0, Speaking 7.5, Writing 7.5)