Chiara Villa

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» Profile

First year PhD student working in the StAMBio group at the University of St Andrews. Reliable, well-organised, determined and hard worker. Particularly interested in mathematical modelling of biological systems, focusing on systems of PDEs to describe tumour growth and computational analysis.

» Education

PhD at University of St Andrews, St Andrews, UK - 09/18 – today
 Doctor of Philosophy Mathematics – StAMBio research group
 Supervisors: Prof Mark Chaplain, Dr Tommaso Lorenzi
 Research topic: Mathematical Modelling of Tumour Growth and Anti-cancer Therapy
 Funded by the School of Mathematics and Statistics, University of St Andrews

MMaths at University of St Andrews, St Andrews, UK - 09/14 – 06/18
 Master in Mathematics (Honours) Applied Mathematics (Fast Track) – First class (1.1)
 Academic Prizes: The Principal's Scholarship for Academic Excellence (2017/8), Dean's list (2017/8, 2016/7, 2015/6, 2014/5)
 Final project: Mathematical Modelling of Tumour-Induced Angiogenesis

Istituto Internazionale Edoardo Agnelli, Torino, IT - 09/12 - 07/14
 Scientific High School Diploma - Grade 100/100
 Maths and Physics extra-curricular activities: Physics Olympic games, "Festa della matematica", Maths Olympic games and Archimedes' games, Maths summer internship in Bardonecchia

Epsom Girls Grammar School, Auckland, NZ - 06/11 – 09/11
 Award for "Highly commended in Mathematics" during mid-term exams

» Work Experience

MT2503 Multivariate Calculus Tutor, St Andrews, UK
University of St Andrews – School of Mathematics and Statistics, 09/18 – 12/18

Bar Staff, St Andrews, UK
University of St Andrews Students' Association,, 06/17 – 06/17

Conference speaker, St Andrews, UK
Undergraduate Summer Research Conference, 08/11/17

- Talk title: Dissecting cancer through mathematics – how the tumour microvasculature and microenvironment influence the eco-evolutionary dynamics of cancer cells

Undergraduate Summer Research Internship, St Andrews, UK
University of St Andrews - Department of Mathematical Biology, 06/17-07/17

- Supervised by Prof Mark Chaplain and Dr Tommaso Lorenzi
- Topic: Mathematical modelling of spatio-temporal evolutionary dynamics of cancer cells focusing on the phenotypic landscape of a solid tumor. Matlab used for numerical solutions

Complex Systems Biology Research, Torino, IT
Research internship in Complex Systems biology, 05/16 – 07/16

- Supervised by Prof Michele Caselle, Dipartimento di Fisica, Torino, IT
- Topic: Role of ohnolog genes in regulatory networks, with a focus on co-regulation and self-regulation of paralogue pairs. Data analysis carried out using Python

Au-pair Childcare, Genova, IT
Full-time nanny in a family with 3 kids, 06/15 – 08/15

English teacher, Su Zhou, China
Summer school teacher, 07/12 – 08/12

- English language lessons, including assignments and class test, afternoon after-school management and recreational activities for primary and secondary school kids

Group leader, Torino, IT
Volunteer group leader with GiOC, 09/11 – 07/14

- Preparation and coordination of group discussions with educational and aggregative purpose
- Organisation and supervision of all activities in summer camps

Voluntary work, Araçuai, Brazil
Voluntary for the ONLUS foundation "Aiutare i bambini", 07/13 – 08/13

- Supervision of the project to support the Assant Centre and the 45 children assigned to it from the juvenile Court, preparation of documents for long-distance adoption

Private lessons, Torino, IT
Maths and English tutor to secondary school kids, 09/10 – 06/13

» Skills & Activities

Languages
- Italian – native speaker
- English – advanced (C2): CAE–C1 (03/13) and TOEFL (12/13) certificates
- French – intermediate (B2): DELF B1 (08/12) certificate and attendance of several intensive courses, both in Torino (Alliance Française) and Nice (International House)
- Brazilian Portuguese – base (A2): attendance of a course with mother tongue teacher

Computer skills
- Good knowledge of programming with Python, Fortran 90 and Matlab
- Basic knowledge of the programming software R and Maple
- Competent use of Microsoft Office tools - ECDL Full Certificate
- Competent use of video editing programs (Movie Maker, AVS Video Editor)

Personal interests
Acoustic guitar, singing, photography, travelling, swimming, hip-hop dancing, figure ice-skating, yoga