CHIARA VILLA

University of St Andrews ⋄ PhD student ⋄ Mathematical Biology

Email	cv23@st-andrews.ac.uk
Website	http://www.mcs.st-and.ac.uk/∼cv23/
Languages	Italian (native), English (C2), French (B1)
Programming	MATLAB, Python, LaTeX, Fortran90, COMSOL, Maple, R, HTML5

EDUCATION

09/18 - Present	**Phd, Mathematics**, *University of St Andrews*, St Andrews (UK) Supervisors: Prof Mark Chaplain, Dr Tommaso Lorenzi Research topic: Mathematical Modelling of Tumour Growth and Anti-cancer Therapy Funding awarded by the School of Mathematics and Statistics
09/18 - Present	**Scottish Mathematical Sciences Training Center** Graduate courses in Continuum Mechanics, Mathematical Biology and Physiology, Numerical Methods
2014 - 2018	**MMaths, Applied Mathematics**, *University of St Andrews*, St Andrews (UK) First Class Honours awarded Academic Prizes: The Principal's Scholarship for Academic Excellence, Dean's list Final project: Mathematical Modelling of Tumour-Induced Angiogenesis
Summer 2017	**Undergraduate Summer Research Internship** *StAMBio, School of Mathematics and Statistics, University of St Andrews*, St Andrews Mathematical modelling of spatio-temporal evolutionary dynamics of cancer cells focusing on the phenotypic landscape of a solid tumor (Numerical solutions in Matlab)
Summer 2016	**Complex Systems Biology Research Internship** *Prof Michele Caselle, Dipartimento di Fisica, Università degli Studi di Torino*, Torino Role of ohnolog genes in regulatory networks, with a focus on co-regulation and self-regulation of paralogue pairs (Data analysis in Python)

SELECTED TALKS

May 2021	**Mathematical Biology on the Mediterranean Coast**, *Online* "Mathematical modelling of early stages vasculogenesis and cell-matrix interactions"
Apr 2021	**Mathematical Population Dynamics, Ecology and Evolution**, *Online* "Modelling the adaptive dynamics of space- and phenotype-structured populations of cancer cells"
Mar 2021	**SoftMech Seminar**, *Online* "Mechanical models of pattern and form in biological tissues: the role of stress-strain constitutive equations"
Jun 2020	**Interplay between Oncology, Mathematics and Numerics**, *Online* "Modelling the emergence of pre-treatment phenotypic heterogeneity in vascularised tumours"
Dec 2019	**Scottish Mathematical Biology Forum**, *ICMS* "Modelling the emergence of phenotypic heterogeneity in vascularised tumours"
Nov 2019	**Visit to Laboratoire Jacques-Louis Lions**, *Sorbonne University* "Modelling the emergence of phenotypic heterogeneity in vascularised tumours"
May 2019	**EMS Postgraduate Meeting**, *The Burn House* "Models of viscoelasticity and their pattern formation potential"
Apr 2019	**StAMBio Internal Seminar**, *University of St Andrews* "Assessing the impact of tissue vascularisation on intratumour heterogeneity using a formal Hamilton-Jacobi approach"

CONFERENCES, WORKSHOPS AND FORUMS

May 2021	**Mathematical Biology on the Mediterranean Coast (Invited speaker)** *Sorbonne University (LJLL)*, Online
Apr 2021	**Mathematical Population Dynamics, Ecology and Evolution** *CIRM*, Online
Aug 2020	**Society for Mathematical Biology (Awarded SMBdevBio Poster Prize 1)** Online conference
Jun 2020	**Interplay between Oncology, Mathematics and Numerics (Invited speaker)** *Sorbonne University (LJLL), Inserm, University of Poitiers*, Online conference
Jan 2020	**Postgraduate Interdisciplinary Mathematics Symposium (Organiser)** *School of Mathematics and Statistics*, The Burn House, Edzell
Jan 2020	**School of Mathematics and Statistics Research Day** *School of Mathematics and Statistics*, St Andrews
Dec 2019	**Scottish Mathematical Biology Forum (Invited speaker)** *Maxwell Institute for Mathematical Sciences*, Edinburgh
Nov 2019	**Modeling, analysis and simulation** – 50 years of Laboratoire Jacques-Louis Lions *Sorbonne University*, Paris
May 2019	**EMS Postgraduate Meeting** *Edinburgh Mathematical Society*, The Burn House, Edzell
May 2019	**Computational Approaches in Mathematical Biology** *University of Dundee*, Dundee
May 2019	**Research School: PDEs in Mathematical Biology: Modelling and Analysis** *London Mathematical Society & Clay Mathematics Institute*, ICMS, Edinburgh
Apr 2019	**British Applied Mathematics Colloquium** *University of Bath*, Bath
Jan 2019	**Postgraduate Interdisciplinary Mathematics Symposium** *School of Mathematics and Statistics*, The Burn House, Edzell
Jan 2019	**School of Mathematics and Statistics Research Day** *School of Mathematics and Statistics*, St Andrews
Dec 2018	**Scottish Mathematical Biology Forum** *Maxwell Institute for Mathematical Sciences*, Edinburgh

TEACHING

All available student feedback data is included and reported on a scale of 1 (excellent) to 5 (poor) in the categories of Explanation (E), Organisation (O) and Availability (A).

Autumn 2020	**MT2000 Computing Workshop**, *Demonstrator, University of St Andrews*
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Autumn 2019	**MT2501 Linear Mathematics**, *Tutor, University of St Andrews* E=1.44, O=1.33, A=1.33
Spring 2019	**MT2507 Mathematical Modelling**, *Tutor/Demonstrator, University of St Andrews* E=1.45, O=1.85, A=1.45
Autumn 2018	**MT2503 Multivariate Calculus**, *Tutor, University of St Andrews* E=1.17, O=1.5, A=1.17

PROFESSIONAL RESPONSIBILITIES

09/20 - today	**School of Mathematics and Statistics**, *StAMBio online seminars organiser*
09/18 - today	**School of Mathematics and Statistics**, *Mentor in Peer Mentoring scheme*
09/18 - 09/19	**School of Mathematics and Statistics**, *PGR Rep & PGR Exec Rep*
09/18 - 09/19	**Scottish Mathematical Sciences Training Center**, *UoSA Student Rep*