CHIARA VILLA

University of St Andrews \diamond PhD student \diamond 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
	Funding awarded by the School of Mathematics and Statistics
09/18 - 05/19	SMSTC graduate courses (Continuum Mechanics, Numerical Methods, Mathematical
	Biology and Physiology)
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
Summer 2017	Undergraduate Summer Research Internship (University of St Andrews)
Summer 2016	Complex Systems Biology Research Internship (Università degli Studi di Torino)

SELECTED 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
$\mathrm{Aug}\ 2020$	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	School of Mathematics and Statistics Research Day
	School of Mathematics and Statistics, St Andrews
$\mathrm{Dec}\ 2018$	Scottish Mathematical Biology Forum
	Maxwell Institute for Mathematical Sciences, Edinburgh

SELECTED TALKS

"Mathematical modelling of early stages vasculogenesis and cell-matrix interactions" Mathematical Population Dynamics, Ecology and Evolution, Online "Modelling the adaptive dynamics of space- and phenotype-structured populations of cancer cells" Apr 2021 StAMBio Internal Seminar, Online "A mathematical model of endothelial progenitor cell cluster formation during the early stages of vasculogenesis" 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"
"A mathematical model of endothelial progenitor cell cluster formation during the early stages of vasculogenesis" 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"
early stages of vasculogenesis" 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"
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"Modelling the emergence of pre-treatment phenotypic heterogeneity in vascularised tumours"
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"

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