Edward Hill

Curriculum Vitae

January 2022

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Nationality: British

Research Interests

Addressing interdisciplinary problems in epidemiology that involve the dynamics of behaviour. I have particular interests in public and veterinary health policy, zoonoses and social contagion. My approach involves the application of mathematical and computational methods including parameter inference, outbreak prediction and evaluation of control strategies via computational simulation.

Appointments

June 2017 - present **Research Fellow**, Zeeman Institute:SBIDER, University of Warwick.

- (October 2019 - April 2020, June 2021 - present) Working on a BBSRC project (in collaboration with Nottingham University) on "Investigating the impact of farmer behaviour and farmer-led control of infectious disease outbreaks in livestock". Led by Dr Mike Tildesley and Professor Matt Keeling.
- (May 2020 - May 2021) As part of the COVID-19 modelling response, I am part of an MRC project on "Mathematical modelling and adaptive control to inform real time decision making for the COVID-19 pandemic at the local, regional and national scale". In collaboration with Dr Mike Tildesley, Professor Matt Keeling, Dr Louise Dyson and Dr Ben Atkins.
- (June 2017 - October 2019) Modelling and analysis of seasonal influenza to underpin vaccination policy for the Dept of Health. Part of MEMVIE (Mathematical and Economic Modelling for Vaccination and Immunisation Evaluation) project, led by Professor Matt Keeling.

Education

Sep. 2013 - Aug. 2017 **PhD in Interdisciplinary Mathematics and Complexity Science.**
University of Warwick.
Supervised by Dr. Thomas House and Dr. Michael Tildesley.
Funded by EPSRC.
Viva Date: June 2017.

Postgraduate Certificate in Transferable Skills in Science.
University of Warwick.

Sep. 2012 - Sep. 2013 **MSc in Complexity Science, with Distinction.**
University of Warwick.
Mini-project one: *Multi-host modelling of influenza A*.
Mini-project two: *Social networks and health*.
Funded by EPSRC.

Sep. 2008 - June 2012 **Master of Mathematics (MMath), with 1st class honours.**
University of Warwick.
Final year project: *Optimal Vaccination*.

Research Internships

Oct. 2016 - Jan. 2017 **Research Assistant,** School of Life Sciences, University of Warwick, UK.
- Development of an adaptive management approach for modelling H5N1 avian influenza in Bangladesh.
- Participated in collaboration meeting with representatives from Bangladesh Department for Livestock Services.

June 2016 - Sep. 2016 **Research Assistant,** School of Life Sciences, University of Warwick, UK.
- Development of a spatial mathematical model of visceral leishmaniasis in Brazil.
- Investigate effectiveness of a pheromone lure product as a control measure.
- Collaborative project with Lancaster University.

Publications

Peer-reviewed journal articles

- Dyson L[†], **Hill EM**[†], … *et al.* Possible future waves of SARS-CoV-2 infection generated by variants of concern with a range of characteristics. *Nature Communications*, **12**: 5730. doi:10.1038/s41467-021-25915-7.
  [†] denotes joint first authors.
- **Hill EM**, Keeling MJ. (2021) Comparison between one and two dose SARS-CoV-2 vaccine prioritization for a fixed number of vaccine doses. *Interface*, **18**(182): 20210214. doi:10.1098/rsif.2021.0214.
- Enright J,[†] **Hill EM**[†], Stage HB, Bolton KJ, Nixon EJ, Fairbanks EM, Tang, ML Brooks-Pollock E, Dyson L, Budd CJ, Hoyle RB, Schewe L, Gog JR, Tildesley MJ. (2021) SARS-CoV-2 infection in UK university students: Lessons from September-December 2020 and modelling insights for future student return. *Royal Society Open Science*, **8**(8): 210310. doi:10.1098/rsos.210310.
  [†] denotes joint first authors.
- **Hill EM**, Atkins BD, Keeling MJ, Tildesley MJ, Dyson L. (2021) Modelling SARS-CoV-2 transmission in a UK university setting. *Epidemics*, **36**: 100476. doi:10.1016/j.epidem.2021.100476.
- **Hill EM**,[†] Atkins BD[†], Keeling MJ, Dyson L,Tildesley MJ. (2021) A network modelling approach to assess non-pharmaceutical diseases controls in a worker population: An application to SARS-CoV-2. *PLoS Computational Biology*, **17**(6): e1009058. doi:10.1371/journal.pcbi.1009058.
  [†] denotes joint first authors.
- Gog JR, **Hill EM**, Danon L, Thompson RN. (2021) Vaccine escape in a heterogeneous population: insights for SARS-CoV-2 from a simple model. *Royal Society Open Science*, **8**(7): 210530. doi:10.1098/rsos.210530.
- Keeling MJ, Guyver-Fletcher G, Holmes A, Dyson L, Tildesley MJ, **Hill EM**, Medley GF. (2021) Precautionary breaks: planned, limited duration circuit breaks to control the prevalence of SARS-CoV-2 and the burden of COVID-19 disease. *Epidemics*. doi:10.1016/j.epidem.2021.100526.
- Southall ER, Holmes A, **Hill EM**, Atkins BD, Leng T, Thompson RN, Dyson L,Keeling MJ, Tildesley MJ. (2021) An analysis of school absences in England during the Covid-19 pandemic. *BMC Medicine*, **19**: 137. doi:10.1186/s12916-021-01990-x.
- Keeling MJ, Tildesley MJ, Atkins BD, Penman B, Southall E, Guyver-Fletcher G, Holmes A, McKimm H, Gorsich E, **Hill EM**, Dyson L. (2021) The impact of school reopening on the

spread of COIVD-19 in England. *Philosophical Transactions of the Royal Society B*, **376**(1829): 20200261. doi:10.1098/rstb.2020.0261.

- Thompson RN, **Hill EM**, Gog JR. (2021) SARS-CoV-2 incidence and vaccine escape. *Lancet Infectious Diseases*, **21**(7): 913-914. doi:10.1016/S1473-3099(21)00202-4.
- Moore S, **Hill EM**, Tildesley MJ, Dyson L, Keeling MJ. (2021) Vaccination and non-pharmaceutical interventions for COVID-19: a mathematical modelling study. *Lancet Infectious Diseases*, **21**(6): 793-802. doi:10.1016/S1473-3099(21)00143-2.
- Moore S, **Hill EM**, Dyson L, Tildesley MJ, Keeling MJ. (2021) Modelling optimal vaccination strategy for SARS-CoV-2 in the UK. *PLoS Computational Biology*, **17**(5): e1008849. doi:10.1371/journal.pcbi.1008849.
- Keeling MJ, **Hill EM**, Gorsich E, Penman B, Guyver-Fletcher G, Holmes A, Leng T, McKimm H, Tamborrino M, Dyson L, Tildesley MJ. (2021) Predictions of COVID-19 dynamics in the UK: short-term forecasting and analysis of potential exit strategies. *PLoS Computational Biology*, **17**(1): e1008619. doi:10.1371/journal.pcbi.1008619.
- Stanizewska S, **Hill EM**, Grant R, Grove P, Porter J, Shiri T, Tulip S, Whitehurst J, Wright C, Datta S, Petrou S and Keeling MJ. (2021) Developing a Framework for Public Involvement in Mathematical and Economic Modelling: Bringing New Dynamism to Vaccination Policy Recommendations. *Patient*, **14**(4): 435-445. doi:10.1007/s40271-020-00476-x.
- **Hill EM**, Petrou S, Forster H, de Lusignan S, Yonova I, Keeling MJ. (2020) Optimising age coverage of seasonal influenza vaccination in England: A mathematical and health economic evaluation. *PLoS Computational Biology*, **16**(10): e1008278. doi:10.1371/journal.pcbi.1008278.
- **Hill EM**, Petrou S, de Lusignan S, Yonova I and Keeling MJ. (2019) Seasonal influenza: Modelling approaches to capture immunity propagation. *PLoS Computational Biology*, **15**(10): e1007096. doi:10.1371/journal.pcbi.1007096.
- Buckingham-Jeffery E[†] , **Hill EM**[†], Datta S, Dilger E, Courtenay O. (2019) Spatio-temporal modelling of Leishmania infantum infection among domestic dogs: a simulation study and sensitivity analysis applied to rural Brazil. *Parasites & Vectors*, **12**: 215. doi:10.1186/s13071-019-3430-y.
  [†] denotes joint first authors.
- **Hill EM**, House T, Dhingra MS, Kalpravidh W, Mozaria S, Muzaffar GO, Brum E, Yamage M, Kalam MA, Prosser DJ, Takekawa JY, Xiao X, Gilbert M and Tildesley MJ. (2018) The impact of surveillance and control on highly pathogenic avian influenza outbreaks in poultry in Dhaka division, Bangladesh. *PLoS Computational Biology*, **14**(9): e1006439. doi:10.1371/journal.pcbi.1006439.
- Eyre RW, House T, **Hill EM** and Griffiths FE. (2017) Spreading of components of mood in adolescent social networks. *Royal Society Open Science*, **4**: 170336. doi:10.1098/rsos.170336.
- **Hill EM**, House T, Dhingra MS, Kalpravidh W, Mozaria S, Muzaffar GO, Yamage M, Xiao X, Gilbert M and Tildesley MJ. (2017) Modelling H5N1 in Bangladesh across spatial scales: Model complexity and zoonotic transmission risk. *Epidemics*, **20C**: 37-55. doi:10.1016/j.epidem.2017.02.007.
- **Hill EM**, Tildesley MJ and House T. (2017) Evidence for history-dependence of influenza pandemic emergence. *Scientific Reports*, **7**: 43623. doi:10.1038/srep43623.
- **Hill EM**, Griffiths FE and House T. (2015) Spreading of healthy mood in adolescent social networks. *Proceedings of the Royal Society B*, **282**(1813): 20151180. doi:10.1098/rspb.2015.1180.

Book chapters

- **Hill EM** and House T. (2019) Modelling the Spread of Mood. In: *Mood: Interdisciplinary Perspectives, New Theories.* Breidenback B and Docherty T (eds.). Milton Park, Abingdon, Oxon: Routledge. pp. 87-108.

Preprints/In submission

- **Hill EM**, Prosser NS, Ferguson E, Kaler J, Green MJ, Keeling MJ, Tildesley MJ. (2021) Modelling livestock infectious disease control policy under differing social perspectives on vaccination behaviour. *agriRxiv*. doi:10.31220/agriRxiv.2021.00100.
- Prosser NS[†], **Hill EM**[†], Armstrong D, Gow L, Tildesley MJ, Keeling MJ, Kaler J, Fergsuon E, Green MJ. (2021) An analysis of bovine viral diarrhoea tests and results submitted to BVDFree England. *agriRxiv*. doi:10.31220/agriRxiv.2021.00095. [†] denotes joint first authors.
- Guzman-Rincon LM, **Hill EM**, Thompson RN, Dyson L, Tildesley MJ, Keeling MJ. (2022) Bayesian Estimation of real-time Epidemic Growth Rates using Gaussian Processes: local dynamics of SARS-CoV-2 in England.. *medRxiv*. doi:10.1101/2022.01.01.21268131.
- Keeling MJ, Brooks-Pollock E, Challen RJ, Danon L, Dyson L, Gog JR, Guzman-Rincon L, **Hill EM**, Pellis LM, Read JM, Tildesley MJ.(2021) Short-term Projections based on Early Omicron Variant Dynamics in England. *medRxiv*. doi:10.1101/2021.12.30.21268307.
- Keeling MJ, Thomas AC, **Hill EM**, Thompson RN, Dyson L, Tildesley MJ, Moore S. (2021) Waning, Boosting and a Path to Endemicity for SARS-CoV-2. *medRxiv*. doi:10.1101/2021.11.05.21265977.
- Leng T, **Hill EM**, Keeling MJ, Tildesley MJ, Thompson RN. (2021) The effect of notification window length on the epidemiological impact of COVID-19 contact tracing mobile applications. *medRxiv*. doi:10.1101/2021.11.08.21266079.
- Leng T, **Hill EM**, Holmes A, Southall E, Thompson RN, Tildesley MJ, Keeling MJ, Dyson L. (2021) Quantifying within-school SARS-CoV-2 transmission and the impact of lateral flow testing in secondary schools in England. *medRxiv*. doi:10.1101/2021.07.09.21260271.
- Challen R, …, **Hill EM**, … *et al.* Early epidemiological signatures of novel SARS-CoV-2 variants: establishment of B.1.617.2 in England. *medRxiv*. doi:10.1101/2021.06.05.21258365.
- Tildesley MJ, Vassall A, Riley S, Jit M, Sandmann F, **Hill EM**, Thompson RN, Atkins BD, Edmunds J, Dyson L, Keeling MJ. (2021) Optimal health and economic impact of non-pharmaceutical intervention measures prior and post vaccination in England: a mathematical modelling study. *medRxiv*. doi: 10.1101/2021.04.22.21255949.
- Eames KTD, Tang ML, **Hill EM**, Tildesley MJ, Read JM, Keeling MJ, Gog JR. (2021) Coughs, Colds and "Freshers' Flu" Survey in the University of Cambridge, 2007-2008. *medRxiv*. doi:10.1101/2021.03.31.21251220.
- Leng T, **Hill EM**, Thompson RN, Tildesley MJ, Keeling MJ, Dyson L. (2021) Assessing the impact of secondary school reopening strategies on within-school COVID-19 transmission and absences: a modelling study. *medRxiv*. doi:10.1101/2021.02.11.21251587.
- Funk S, …, **Hill EM**, … *et al.* Short-term forecasts to inform the response to the Covid-19 epidemic in the UK. *medRxiv*. doi:10.1101/2020.11.11.20220962.
- Keeling MJ, Dyson L, Guyver-Fletcher G, Holmes A, Semple MG, ISARIC4C Investigators, Tildesley MJ, **Hill EM**. (2020) Fitting to the UK COVID-19 outbreak, short-term forecasts and estimating the reproductive number. *medRxiv*. doi:10.1101/2020.08.04.20163782.

Other Publications

- **Hill EM**, Tildesley MJ and House T. (2017) How predictable are flu pandemics? *Significance*, **14**(6): 30-35.

PhD thesis

- **Hill EM** (2017) *Mathematical modelling approaches for spreading processes : zoonotic influenza and social contagion*. PhD thesis, University of Warwick, UK.

Awards

Nov 2021	RAMP (Rapid Assistance for Modelling the Pandemic) Continuity funding: Early Career Researcher Knowledge Exchange Project Award (2500 GBP). Facilitation and organisation of an Isaac Newton Institute for Mathematical Sciences workshop series on "Modelling Behaviour to Inform Policy for Pandemics".
Apr. 2021	Received a RAMP Early Career Investigator Award from the Royal Society. Recognition of early career researchers who have made exceptional contributions towards RAMP's activities.
Mar. 2020	Winner of a 2020 Faculty Post-Doctoral Research prize from the University of Warwick (500 GBP). Awarded for the paper "Seasonal influenza: Modelling approaches to capture immunity propagation".
Nov. 2018	Awarded a bursary (300 GBP) from the University of Warwick Public Engagement Fund. Co-applicant with other DataBeers Warwick organising team members. Support the running of a DataBeers Warwick meeting.
Feb. 2018	Recipient of an ESMTB travel grant (300 EUR). Support attendance at the European Conference on Mathematical and Theoretical Biology (ECMTB) 2018 conference. Held from 23rd-27th July, 2018 in Lisbon, Portugal.
Aug. 2014	Accepted for participation in *The Helsinki Summer School on Mathematical Ecology and Evolution 2014: Dynamics of Infectious Diseases*. 17th-24th August. Held in Turku, Finland. 40 participants.
Sep. 2012	Engineering and Physical Sciences Research Council (EPSRC). Full funding for MSc and PhD studies.

Conference Contributions

Session chair

- *Mathematical Epidemiology Contributed Talks Session 9* SMB 2021 (Society for Mathematical Biology 2021 Annual Meeting). Online conference, June2021.
- *COVID-19 Contributed Talks III.* eSMB2020 (Society for Mathematical Biology 2020 Annual Meeting). Online conference, August 2020.
- *Diseases and Epidemics 1.* Conference on Complex Systems 2019. Nanyang Technological University, Singapore, October 2019.
- *Epidemiology: Part A.* 2018 Annual Meeting of the Society for Mathematical Biology & the Japanese Society for Mathematical Biology. Sydney, Australia, July 2018.

Contributed Talks

- *A comparison between one and two dose SARS-CoV-2 vaccine prioritisation in England for a fixed number of vaccine doses.* Epidemics[8] - International Conference on Infectious Disease Dynamics. Online conference, December 2021.
- *A network modelling approach to assess non-pharmaceutical disease controls against SARS-CoV-2 in a worker population.* SMB 2021 (Society for Mathematical Biology 2021 Annual Meeting). Online conference, June 2021.

- *Predictions of COVID-19 dynamics in the UK: short-term forecasting, analysis of lockdown relaxation strategies and impact of reopening schools.* eSMB 2020 (Society for Mathematical Biology 2020 Annual Meeting). Online conference, August 2020.
- *Seasonal influenza: Modelling approaches to capture immunity propagation.* Conference on Complex Systems 2019. Nanyang Technological University, Singapore, October 2019.
- *Spatio-temporal modelling of visceral leishmaniasis among domestic dogs in rural Brazil.* IDDconf 2018. Ambleside, UK, September 2018.
- *Assessing intervention responses against H5N1 avian influenza outbreaks in Bangladesh.* ECMTB 2018: 11th European Conference on Mathematical and Theoretical Biology. Lisbon, Portugal, July 2018.
- *Evidence for history-dependence of influenza pandemic emergence.* 2018 Annual Meeting of the Society for Mathematical Biology & the Japanese Society for Mathematical Biology. Sydney, Australia, July 2018.
- *Assessing intervention responses against H5N1 avian influenza outbreaks in Bangladesh.* Mathematical Challenges from the Life Sciences. Coventry, UK, September 2017.
- *Modelling influenza A at the human-animal interface.* The 2016 Conference on Complex Systems. Amsterdam, The Netherlands, September 2016.
- *Modelling H5N1 influenza in Bangladesh across spatial scales: model complexity and zoonotic transmission risk.* Contagion'16 Satellite Meeting. Amsterdam, The Netherlands, September 2016.
- *Spreading of healthy mood in adolescent friendship networks.* Stochastic models of the spread of disease and information on networks. Edinburgh, UK, July 2016.
- *Analysis of historic pandemic influenza outbreaks.* Student Conference on Complexity Science (SCCS) 2015. Granada, Spain, September 2015.
- *Modelling influenza at the human-animal interface.* Mathematical and Computational Epidemiology of Infectious Diseases (MathCompEpi) 2015. Erice, Italy, September 2015.

Flash Talks

- *Evidence for history-dependence of influenza pandemic emergence.* Conference on Complex Systems (CCS) Warm Up. Amsterdam, The Netherlands, September 2016.

Posters

- *A network modelling approach to assess non-pharmaceutical disease controls against SARS-CoV-2 in a worker population.* Epidemics[8] - International Conference on Infectious Disease Dynamics. Online conference, December 2021.
- *Modelling seasonal influenza in England: Approaches to capture immunity propagation.* Epidemics[7] - International Conference on Infectious Disease Dynamics. Charleston, South Carolina, USA, December 2019.
- *Spatio-temporal modelling of Leishmania infantum infection among domestic dogs in rural Brazil.* Epidemics[7] - International Conference on Infectious Disease Dynamics. Charleston, South Carolina, USA, December 2019.
- *Seasonal influenza in England: Modelling approaches to capture immunity propagation.* 2019 Annual Meeting of the Society for Mathematical Biology. Montreal, Canada, July 2019.
- *Assessing intervention responses against H5N1 avian influenza outbreaks in Bangladesh.* Epidemics[6] - International Conference on Infectious Disease Dynamics. Sitges, Spain, December 2017.
- *Mathematical modelling of influenza A (H5N1) epidemics in Bangladesh.* ECMTB 2016: 10th European Conference on Mathematical and Theoretical Biology. Nottingham, UK, July 2016.
- *Spreading of healthy mood in adolescent social networks.* ECMTB 2016: 10th European Conference on Mathematical and Theoretical Biology. Nottingham, UK, July 2016.

- *Mathematical modelling of zoonotic influenza A applied to Bangladesh.* Epidemics[5] - International Conference on Infectious Disease Dynamics. Clearwater Beach, Florida, USA, December 2015.
- *Modelling influenza at the human-animal interface.* Ecological and Molecular modelling of infections (EMOTIONS) 2014. Lyon, France, December 2014.

Invited Talks

- *Modelling potential impacts of SARS-CoV-2 variants of concern.* JUNIPER consortium virtual research meeting, May 2021.
- *Developing a Framework for Public Involvement in Mathematical and Economic Modelling: Bringing New Dynamism to Vaccination Policy Recommendations.* NIHR Statistics Group Career Development Section and the NIHR Methodology Incubator Statistics Workstream webinar "Applied Statisticians as Principal Investigators", April 2021.
- *Predictions of COVID-19 dynamics in the UK: short-term forecasting, analysis of potential exit strategies and impact of contact networks.* Research and Teaching in statistical and data science seminar, University of Glasgow, September 2020.
- *Modelling SARS-CoV-2 transmission in a higher education setting: Application to the University of Warwick.* COVID 19 and Higher Education Space, Isaac Newton Institute (University of Cambridge) online workshop, July 2020.
- *Modelling seasonal influenza in England: Approaches to capture immunity propagation.* Infections@BDI Seminar, Big Data Institute, University of Oxford, July 2019.
- *Modelling influenza A (H5N1) in South and Southeast Asia.* Mathematical Biology for Understanding Emerging Infectious Diseases at the Human-Animal-Environment Interface: a "One Health" Approach. Banff International Research Station, Alberta, Canada, November 2016.
- *Social contagion over adolescent friendship networks.* Division of Health Sciences Seminar Series, Warwick Medical School, University of Warwick, June 2015.

Teaching

Nov. 2017 - Jan. 2018
Nov. 2019 - Jan. 2020
Nov. 2020 - Jan. 2021
Nov. 2021 - Jan. 2022

Lecturer/workshop assistant for taught module, *Mathematical Modelling*, delivered to postgraduate students in the Midland Integrative Biosciences Training Partnership doctoral training programme, University of Warwick.

Delivered one lecture in a set of four workshop sessions. Discussed and aided students with workshop questions. Involved in marking the final assignment for the module.

Jan. 2016 - Apr. 2016

Teaching Assistant for 4th year undergraduate Mathematics module *Population Dynamics: Ecology and Epidemiology*, University of Warwick.
Planned and ran support class sessions.

Sep. 2011 - Apr. 2014

Supervisor for 1st year undergraduate Mathematics students, University of Warwick.
A supervisor is assigned groups of 4/5 students. The supervisor marks the assignments of his/her students, meets the students for one hour each, and discusses the assignments and other material on the courses the students are studying.

Service and Leadership

Editorial roles

Ongoing	Editorial Board member: Journal of Theoretical Biology
2022	Guest editor: Mathematics Today (Pandemics Special Issue)

Reviewer roles

Reviewer for journals (listed alphabetically):
BMC Infectious Diseases, BMJ Open, Communications Medicine, International Journal of Environmental Research and Public Health, International Journal of Infectious Diseases, Journal of Theoretical Biology, Nature Communications,
Philosophical Transactions of the Royal Society B: Biological Sciences, PLOS Computational Biology, PLOS One, Royal Society Open Science, Scientific Reports, Theoretical Biology And Medical Modelling,
Tropical Medicine and Infectious Disease, Virus Research, Wellcome Open Research.

Reviewer for scientific meetings (listed alphabetically):
NetSci-X 2020 subreviewer.

Scientific meeting organisation

2020	Co-organiser of the online workshop *Mathematical modelling and COVID-19: How can modelling inform a response to the current COVID-19 resurgence?* 5th-6th October 2020, International Centre for Mathematical Sciences. 40 attendees.
2019	Co-organiser of satellite session on *Challenges in Epidemiological Modelling* at the *Conference on Complex Systems 2019*. In collaboration with two PhD colleagues from SBIDER and MathSys CDT, we solicited abstract submissions, compiled a programme with a run time of 210 minutes, and set up and maintained an event webpage. Engaged with 30 attendees.
2016	Co-organiser for *Centre for Complexity Science Annual Retreat 2016*. 3rd-6th May 2016, Ironbridge Coalport YHA. 60 attendees.
2015	Co-organiser for *Centre for Complexity Science Annual Retreat 2015*. 11th-14th May 2015, YHA Wilderhope Manor. 60 attendees.
2014	Co-organiser for *Mathematical Challenges for Long Epidemic Time Series/Big Data and Google Flu workshop*. 15th-17th December 2014, University of Warwick. 75 delegates.

Student supervision

2021 - present	PhD co-supervisor for Zak Gittens (MathSys CDT, University of Warwick).
2021	Supervision of Lauren Adams, undertaking a Masters in Public Health project (PC950 Professional Project).
2021	Co-supervision of an MSc Individual Research Project (course code: MA931). Student: Zak Gittens.
2021	Co-supervision of MSc Research Study Group Project (course code: MA932).
2020 - 2021	Co-supervision of two MMath Research projects (course code: MA4K9). Students: Panoraia Chortaria and Joel Kandiah.
2017 - present	PhD "advisor" (a formal role outside the student's immediate supervisory team) for Naomi Bradbury (MIBTP programme, University of Warwick).
2014	MSc project "advisor" (a formal role outside the student's immediate supervisory team) for Rob Eyre (Complexity Science Doctoral Training Centre programme, University of Warwick).

Other Professional Activities

2021 - present	PhD Advisory Committee member for three students in the MathSys CDT, University of Warwick.
2020	Poster judge for Mathematical Epidemiology subgroup at eSMB 2020 (Society for Mathematical Biology 2020 Annual Meeting).
2014-2016	Student-Staff Liaison Committee, student representative.
2014-2016	Organiser of Epidemiology Reading Group, Complexity Science Centre, University of Warwick.

Public Engagement and Science Communication

- *University of Warwick Family Day*. Co-organiser of event in collaboration with colleagues from SBIDER and Warwick Medical School. Planned and ran a set of 'have a go' activities under the theme of 'Outbreak - Learning how diseases spread'. Engaged with 500-1,000 attendees (September 2019).
- *Co-organiser for DataBeers Warwick*. Public engagement event bringing together data experts from industry and academia at a level accessible to a wide audience in the West Midlands (2018, 2019).
- *Coventry & Warwickshire Pint of Science*. Volunteer at an event venue for the 2019 edition. Pint of Science brings researchers to local pubs to present their scientific discoveries.
- *Article writing ('The Conversation')*. Contributed article "When it comes to mental health, parents shouldn't worry who their children are friends with" (2015).

Programming Skills

- Proficient in Julia, MATLAB, R, C, LaTeX.
- Working knowledge of parallel computing.
- Use of git for version control and GitHub for open/reproducible science (GitHub username: EdMHill).

Professional and academic affiliations

Apr. 2020 - present	Participant of the Scientific Pandemic Influenza Group on Modelling (SPI-M), reporting to the Scientific Advisory Group for Emergencies (SAGE) in response to the COVID-19 pandemic.
2018 - present	Member of the Society for Mathematical Biology (SMB).
2016 - present	Member of the European Society for Mathematical and Theoretical Biology (ESMTB).

Referees

Prof. Matt Keeling
Director of Zeeman Institute: Systems Biology and Infectious Disease Epidemiology Research (SBIDER)
School of Life Sciences and Warwick Mathematics Institute
University of Warwick, Coventry, CV4 7AL, UK
Email: M.J.Keeling@warwick.ac.uk

Prof. Julia Gog
Professor of Mathematical Biology
Department of Applied Mathematics and Theoretical Physics
University of Cambridge, Cambridge, CB3 0WA, UK
Email: jrg20@cam.ac.uk

Prof. Dame Angela McLean
Professor of Mathematical Biology & Chief Scientific Adviser for the Ministry of Defence
Department of Zoology
Zoology Research and Administration Building, Oxford, OX1 3SZ, UK
Email: angela.mclean@zoo.ox.ac.uk