



Europass Curriculum Vitae



Personal information

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Skype	roberto.rosa1968
Nationality	Italian
Date of birth	14.10.1968
Place of birth	Arco (TN) – ITALY
Gender	Male

Work experience

28/12/2018-date	<p>Position: Associate Professor</p> <p>Institution: Centre Agriculture Food Environment (C3A), University of Trento – Fondazione Edmund Mach, San Michele all’Adige (TN), Italy</p> <p>Role: Associate Professor in Animal Infectious and Parasitic Diseases (07/H3), disciplinary sector VET/06 (Infectious and Parasitic Diseases of Animals)</p>
01/01/2008-27/12/2018	<p>Position: Senior researcher (Ricercatore di seconda fascia a tempo indeterminato, Contratto Collettivo Provinciale di Lavoro delle Fondazione di Ricerca, Provincia Autonoma di Trento)</p> <p>Institution: Applied Ecology Research Unit, Department of Biodiversity and Molecular Ecology, Research and Innovation Centre, Fondazione Edmund Mach, San Michele all’Adige (TN), Italy</p> <p>Role: Head of the research line “Ecological and epidemiological modelling”</p>
01/04/2007-31/12/2007	<p>Position: Temporary researcher (Ricercatore di seconda fascia a tempo determinato, Contratto Pubblico della Ricerca della Provincia Autonoma di Trento)</p> <p>Institution: Centre for Alpine Ecology, Viote del Monte Bondone, Trento, Italy</p> <p>Role: Researcher in the field of “Mathematical and statistical modelling of eco-epidemiological data”</p>

01/04/2004-31/03/2007	<p>Position: Post-doc researcher (Contratto di collaborazione coordinata e continuativa, Co.co.co.)</p> <p>Institution: Centre for Alpine Ecology, Viote del Monte Bondone, Trento, Italy</p> <p>Role: Principal Investigator of the project “Modelling the spatio-temporal dynamics of zoonotic wildlife infections” funded by the Autonomous Province of Trento, bando Post-doc per giovani ricercatori</p>
01/11/1997-31/03/2004	<p>Position: Research collaborator (Contratto di collaborazione coordinata e continuativa, Co.co.co.)</p> <p>Institution: Centre for Alpine Ecology, Viote del Monte Bondone, Trento, Italy</p> <p>Role: Research collaborator in the field of “Mathematical and statistical eco-epidemiology”</p>
01/11/1995-30/09/1997*	<p>Position: Fellowship holder (Borsa di studio)</p> <p>Institution: Centre for Alpine Ecology, Viote del Monte Bondone, Trento, Italy</p> <p>Role: Postgraduate fellowship in the field of “Models for host-macroparasite dynamics”</p>
01/06/1994-30/06/1994**	<p>Position: Fellowship holder (Borsa di studio)</p> <p>Institution: Centre for Alpine Ecology, Viote del Monte Bondone, Trento, Italy</p> <p>Role: Postgraduate fellowship in the field of “Models for host-macroparasite dynamics”</p> <p>**The fellowship was interrupted (and then resumed*) to perform military service</p>

National scientific qualification

Dates	2014
	Award of the Italian National Scientific Qualification ("Abilitazione Scientifica Nazionale") as Associate Professor for the discipline 07/H3 Animal infectious and parasitic diseases (“Malattie infettive e parassitarie degli animali”)

Education and training

Dates	04/11/2003
Title of qualification awarded	Ph.D.
Principal subjects/skills covered	Biology
Name and type of organisation providing education and training	Department of Biological Science, University of Stirling, Scotland, UK
Dates	25/03/1994
Title of qualification awarded	M.Sc.
Principal subjects/skills covered	Mathematics
Name and type of organisation providing education and training	Department of Mathematics, University of Trento, Italy

Other education

Dates	08/05/2017 – 12/05/2017
Title of qualification awarded	Course on Spatio-Temporal Ecological Data Analysis using R-INLA
Principal subjects/skills covered	Regression models with spatial and temporal correlation
Name and type of organisation providing education/training	Highland Statistics Ltd., Scotland (UK)
Course duration	25 hours
Dates	09/05/2016 – 13/05/2016
Title of qualification awarded	Course on Zero-Inflated with R
Principal subjects/skills covered	Zero-inflated Generalized Linear (Mixed) Models
Name and type of organisation providing education/training	Highland Statistics Ltd., Scotland (UK)
Course duration	25 hours
Dates	11/05/2015 – 15/05/2015
Title of qualification awarded	Course on Generalized Additive Models with R
Principal subjects/skills covered	Generalized Additive (Mixed) Models
Name and type of organisation providing education/training	Highland Statistics Ltd., Scotland (UK)
Course duration	25 hours
Dates	09/07/2013 – 11/07/2013
Title of qualification awarded	Course on MATLAB Fundamentals
Principal subjects/skills covered	Comprehensive course on the MATLAB® technical computing environment
Name and type of organisation providing education/training	The MathWorks, Torino (Italy)
Course duration	20 hours
Dates	31/05/2010 – 04/06/2010
Title of qualification awarded	Course on Data exploration & Regression
Principal subjects/skills covered	Generalized Linear Models with introduction to R
Name and type of organisation providing education/training	Highland Statistics Ltd., Scotland (UK)
Course duration	25 hours
Dates	13/07/2009 – 17/07/2009
Title of qualification awarded	Summer School in Ecological Statistics
Principal subjects/skills covered	Bayesian Data Analysis Techniques for Ecologists
Name and type of organisation providing education/training	Alpine Wildlife Research Centre, Gran Paradiso National Park, Italy
Course duration	30 hours
Dates	04/12/2006- 05/12/2006
Title of qualification awarded	Course on Mathematica

Principal subjects/skills covered	Core technologies of Mathematica computational program
Name and type of organisation providing education/training	Wolfram U, Berlin (Germany)
Course duration	12 hours
Dates	05/02/2001-16/02/2001
Title of qualification awarded	Course on Analysing Biological Data
Principal subjects/skills covered	Advanced statistical methods for the analysis of biological data
Name and type of organisation providing education/training	Department of Biological Science, University of Stirling, Scotland (UK)
Course duration	60 hours
Dates	14/10/1996 – 31/10/1996
Title of qualification awarded	Third Autumn workshop on Mathematical Ecology
Principal subjects/skills covered	Mathematical Models in Ecology
Name and type of organisation providing education/training	International Centre for Theoretical Physics, Trieste (Italy)
Course duration	90 hours
Dates	10/01/1996 – 14/01/1996
Title of qualification awarded	Winter school on Population Dynamics
Principal subjects/skills covered	Quantitative Methods in Population Biology and Epidemiology
Name and type of organisation providing education/training	Dutch National Science Foundation, Woudschoten (Netherlands)
Course duration	30 hours

Personal skills and competences

Mother tongue	Italian															
Other language	<table border="1"> <thead> <tr> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th>Writing</th> </tr> <tr> <th>Listening</th> <th>Reading</th> <th>Spoken interaction</th> <th>Spoken production</th> <th></th> </tr> </thead> <tbody> <tr> <td>C1</td> <td>C1</td> <td>C1</td> <td>C1</td> <td>C1</td> </tr> </tbody> </table>	Understanding		Speaking		Writing	Listening	Reading	Spoken interaction	Spoken production		C1	C1	C1	C1	C1
Understanding		Speaking		Writing												
Listening	Reading	Spoken interaction	Spoken production													
C1	C1	C1	C1	C1												
English (*)	(*) Certificate in Advanced English, University of Cambridge, Local Examinations Syndicate															
Communication skills	Good communication skills acquired during my experience of teaching at the University and at several advanced training courses for post-graduate and PhD students															
Computer skills	Operating systems: MacOS/Windows Mathematical software: MatLab, MatCont, Mathematica, Content, Locbif Statistical software: R, R-studio, S-Plus, Genstat, Statistica Programming languages: Fortran, C++, C															
Driving licence	Driving licence B category															

Teaching activity

Lecturer at University

- 1 Corso di Laurea Triennale in Viticoltura ed Enologia, Centro Agricoltura Alimenti Ambiente (C3A), University of Trento (Italy)
In charge of the course of: *Statistical methods in agricultural studies*
Teaching load: 60 hours
Academic year: 2020-2021
- 2 Corso di Laurea Triennale in Viticoltura ed Enologia, Centro Agricoltura Alimenti Ambiente (C3A), University of Trento (Italy)
In charge of the course of: *Mathematics and Statistics*
Teaching load: 60 hours
Academic year: 2020-2021
- 3 Corso di Laurea Triennale in Viticoltura ed Enologia, Centro Agricoltura Alimenti Ambiente (C3A), University of Trento (Italy)
In charge of the course of: *Statistical methods in agricultural studies*
Teaching load: 60 hours
Academic year: 2019-2020
- 4 Corso di Laurea Triennale in Viticoltura ed Enologia, Centro Agricoltura Alimenti Ambiente (C3A), University of Trento (Italy)
In charge of the course of: *Mathematics and Statistics*
Teaching load: 60 hours
Academic year: 2019-2020
- 5 Corso di Laurea Triennale in Viticoltura ed Enologia, Centro Agricoltura Alimenti Ambiente (C3A), University of Trento (Italy)
In charge of the course of: *Statistical methods in agricultural studies*
Teaching load: 60 hours
Academic year: 2018-2019
- 6 Corso di Laurea Triennale in Viticoltura ed Enologia, Ingegneria delle Industrie Alimentari, University of Trento (Italy)
In charge of the course of: *Mathematics*
Teaching load: 50 hours
Academic year: 2003-2004
- 7 Corso di Laurea Triennale in Viticoltura ed Enologia, Ingegneria delle Industrie Alimentari, University of Trento (Italy)
In charge of the course of: *Mathematics*
Teaching load: 75 hours (55 hours as teaching assistant)
Academic year: 2002-2003

**Lecturer at master courses,
workshops and advanced
training courses**

- 8 Corso di Laurea Triennale in Viticoltura ed Enologia, Ingegneria delle Industrie Alimentari, University of Trento (Italy)
In charge of the course of: *Mathematical Analysis I*
Teaching load: 50 hours
Academic year: 2001-2002
- 1 ECM Accredited Workshop (in Italian): “Arbovirosi: una problematica emergente”
Location: Fondazione Bruno Kessler in Trento, Italy
Date: 15 February 2019
Lesson title: “Trasmissione e rischio d’infezione di arbovirosi trasmesse dalla zanzara *Culex pipiens*: il caso studio del virus del Nilo Occidentale”
- 2 ECM Accredited Workshop (in Italian): “Il controllo delle zanzare: l'approccio multidisciplinare One-Health”
Location: Fondazione Edmund Mach in San Michele all’Adige (TN), Italy
Date: 28 November 2017
Lesson title: “Modelli matematici per la stima del rischio di trasmissione di arbovirosi tropicali veicolate dalla zanzara tigre”
Lesson duration: 1 hour
- 3 ECM Accredited Course (in Italian): “Artropodi vettori di patogeni per l'uomo e gli animali”
Location: Istituto Zooprofilattico Sperimentale delle Venezie in Legnaro (PD), Italy
Date: 23 May 2016
Lesson title: “Nuovi modelli per il controllo delle specie invasive in Italia: il progetto Lexem”
Lesson duration: 2 hours
- 4 International Course: “Mathematical modelling applied to emerging disease models”, organized by EU-FP6 PROJECT EDEN “Emerging Diseases in a changing European Environment
Location: University of Utrecht, The Netherlands
Date: 23-25 June 2005
Lessons titles: “Modelling tick-borne infections” and “Tick-borne infections: ecology and dynamics”
Lessons duration: 4 hours
- 5 Master Course (in Italian): “Ecologia delle malattie trasmissibili nella fauna selvatica”, organized by Società Italiana di Ecopatologia della Fauna
Location: Centro di Ecologia Alpina, Viote del Monte Bondone (TN), Italy
Date: 6-10 June 2005
Lesson title: “Modelli matematici per lo studio della dinamica delle malattie trasmesse da zecche”
Lesson duration: 2 hours
- 6 Master Course (in Italian): “Ecologia delle malattie trasmissibili nella fauna selvatica” organized by Società Italiana di Ecopatologia della Fauna
Location: Centro di Ecologia Alpina, Viote del Monte Bondone (TN), Italy
Date: 17-21 May 2004
Lesson title: “Modelli matematici per lo studio della dinamica delle malattie trasmesse da zecche”
Lesson duration: 2 hours

- 7 Advanced Training Course (in Italian): “Medicina Veterinaria: Conservazione e Gestione della Fauna Selvatica”, organized by Società Italiana di Ecopatologia della Fauna
Location: Rifugio Alpe Cucco, Bosco della Ficuzza, Corleone (Palermo), Italy
Date: 27-30 April 1998
Lesson title: “Introduzione ai modelli di dinamica di popolazione e all’interazione ospite-macroparassita”
Lesson duration: 2 hours
- 8 Advanced Training Course (in Italian): “Ecologia delle malattie trasmissibili nella fauna selvatica” organized by Società Italiana di Ecopatologia della Fauna
Location: Centro di Ecologia Alpina, Viote del Monte Bondone (TN), Italy
Date: 1-5 December 1997
Lesson title: “Ecologia delle malattie trasmesse da vettori”
Lesson duration: 2 hours

Invited seminars

- 1 DIDE Seminars series
Location: Faculty of Medicine, School of Public Health, Imperial College London (UK)
Host: Dr. Ilaria Dorigatti
Date: 24 October 2016
Seminar title: “The role of climatic and ecological factors in shaping mosquito-borne infection dynamics: *Culex pipiens* and West Nile virus as case studies”
- 2 Biomathematics seminar series
Location: Department of Mathematics, University of Trento (Italy)
Host: Prof. Andrea Pugliese
Date: 26 May 2014
Seminar title: “Research activity on mathematical epidemiology at FEM”
- 3 Biomathematics seminar series
Location: Department of Mathematics, University of Trento (Italy)
Host: Prof. Andrea Pugliese
Date: 6 November 2008
Seminar title: “Modelling tick-borne infections”

Mentoring and supervision activity

Supervision of junior researchers and post-docs

- 1 Federico Ossi
Research fellow at Centre Agriculture Food Environment (C3A), University of Trento – Fondazione Edmund Mach, San Michele all’Adige (TN), Italy
Period 09/12/2019 – 28/02/2021
Role: Supervisor
- 2 Letizia Fambri
Junior researcher within the Research Agreement “*Aedes albopictus* monitoring plan for Comunità Alto Garda e Ledro, Trentino, Italy”
Period: 30/05/2016 – 30/11/2016
Role: Supervisor

- 3 Daniel Inversen
Junior researcher within the Research Agreement “*Aedes albopictus* monitoring plan for Comunità Alto Garda e Ledro, Trentino, Italy”
Period: 30/05/2016 – 30/11/2016
Role: Supervisor
- 4 Giovanni Marini
Junior researcher within the European project EuroWestNile “European West Nile R&D collaborative project”
Period: 16/03/2013 – 15/10/2013
Role: Supervisor
- 5 Bolzoni Luca
Post-doc researcher within the project EuroWestNile “European West Nile R&D collaborative project”
Period: 01/12/2011 – 28/02/2014
Role: Supervisor
- 6 Bolzoni Luca
Post-doc researcher within the project ACE-SAP “Alpine ecosystems in a changing environment: biodiversity sensitivity and adaptive potential”
Period: 01/12/2009 - 30/11/2011
Role: Supervisor

Supervision of PhD and master students

- 1 Giulia Mecattelli
PhD student at the Centre Agriculture Food Environment (C3A), University of Trento – Fondazione Edmund Mach, San Michele all’Adige (TN), Italy
Title of PhD thesis: “Spread, circulation and impact of emergent arthropode borne viruses: a novel study between Senegal and Italy”
Period: 01/11/2019 – date
Role: Supervisor
- 2 Chiara Virgillito
PhD student at the Department of Public Health and Infectious Diseases in University of Roma SAPIENZA (Italy)
Title of PhD thesis: “Quantitative methods to estimate public health risk from invasive *Aedes arbovirus* vectors”
Period: 01/11/2018 – date
Role: Co-supervisor with Prof. Alessandra della Torre (University of Roma SAPIENZA, Italy)
- 3 Youmsi Fokou Roger Ducos
PhD Internship from University of Yaounde I (Cameroon) at Fondazione Edmund Mach, San Michele all’Adige (TN), Italy
Title of internship project: “Training in data analysis of repellent properties of ethno-botanically plant extract”
Period: 01/05/2017 – 30/07/2017
Role: Co-supervisor with Dr. Annapaola Rizzoli (Fondazione Edmund Mach)
- 4 Giovanni Marini
PhD student at the Department of Mathematics, University of Trento (Italy)
Title of PhD thesis: “The importance of climatic and ecological factors for vector-borne infections: *Culex pipiens* and West Nile virus”
Period: 01/11/2013 – 26/04/2017
Role: Co-supervisor with Prof. Andrea Pugliese (University of Trento)

- 5 Moustafa Mohamed
PhD Internship from Hokkaido University, Sapporo (Japan) at Fondazione Edmund Mach, San Michele all'Adige (TN), Italy
Title of internship project: "Training in data analysis of rodents populations infected with tick-borne pathogens"
Period: 15/11/2015 – 30/11/2015
Role: Co-supervisor with Dr. Anna Paola Rizzoli (Fondazione Edmund Mach)
- 6 Nina Vanessa Littwin
PhD Internship from Karlsruhe Institute of Technology, Zoological Department (Germany) at Fondazione Edmund Mach, San Michele all'Adige (TN), Italy
Title of internship project: "Training in advance analysis of complex ecological datasets"
Period: 04/05/2015 – 19/06/2015
Role: Supervisor
- 7 Mattia Manica
PhD Internship from University of Roma "La Sapienza" (Italy) at Fondazione Edmund Mach, San Michele all'Adige (TN), Italy
Title of internship project: "Analisi dati eco-epidemiologici per il controllo integrato di zanzare vettrici di patogeni"
Period: 27/02/2015 – 16/03/2015
Role: Supervisor
- 8 Marini Giovanni
M.Sc. Internship from Department of Mathematics, University of Trento (Italy) at Fondazione Edmund Mach, San Michele all'Adige (TN), Italy
Title of internship project: "Relazione tra dinamica di popolazione di zanzare e andamenti meteo-climatici"
Period: 01/08/2012 – 31/01/2013
Role: Supervisor
- 9 Mattia Manica
M.Sc. Thesis in Mathematics at the Department of Mathematics, University of Trento (Italy)
Title of M.Sc. Thesis: "A two-host shared macroparasite system with spatial heterogeneity"
Period: 01/10/2010 - 30/03/2011
Role: Co-supervisor with Prof. Andrea Pugliese (University of Trento)
- 10 Mattia Manica
M.Sc. Internship from Department of Mathematics, University of Trento (Italy) at Centre for Alpine Ecology, Trento (Italy)
Title of internship project: "Relazione statistica tra fenologia delle zecche e clima"
Period: 01/12/2009 – 01/03/2010
Role: Supervisor
- 11 Lorenzoni Rosanna
MS.c. Internship from Department of Mathematics, University of Trento (Italy) at Centre for Alpine Ecology, Trento (Italy)
Title of internship project: "Studio di infezioni trasmesse da zecche"
Period: 11/03/2004 - 20/05/2004
Role: Supervisor

- 12 | Marighetti Cinzia
 MS.c. Internship from Department of Mathematics, University of Trento (Italy) at Centre for Alpine Ecology, Trento (Italy)
 Title of internship project: “Studio di Infezioni trasmesse da zecche”
 Period: 11/03/2004 - 20/05/2004
 Role: Supervisor

International and national projects

- Research projects for which funding has been provided on the basis of competitive selection procedures and which include peer review*
- 2020-2025 | Project title: Monitoring Outbreak events for Disease surveillance in a data science context (*MOOD*)
 Funding agency: European Commission – Horizon 2020 Programme
 Total amount funded: € 12 000 000
 Role in the project: Partner’s investigator
- 2018-2022 | Project title: Aedes Invasive Mosquitoes COST ACTION (*AIM*)
 Funding agency: European Commission – COST Open Call
 Total amount funded: € 600 000
 Role in the project: Management Committee member and Task Leader
- 2016-2021 | Project title: A Global Alliance for Zika Virus Control and Prevention (*ZIKAlliance*)
 Funding agency: European Commission – Horizon 2020 Programme
 Total amount funded: € 15 587 726
 Role in the project: Partner’s principal investigator
- 2013-2017 | Project title: Laboratory of Excellence for Epidemiology and Modelling. Facing the introduction and spread of Invasive Alien Species (IAS) into the territory of the Autonomous Province of Trento (*LEXEM*)
 Funding agency: Autonomous Province of Trento – Bando Grandi Progetti anno 2012
 Total amount funded: € 1 017 145
 Role in the project: Project’s deputy coordinator
- 2012-2015 | Project title: *Aedes albopictus* in northern Italy - molecular markers and mathematical models to predict its potential future spread and the impact of control strategies (*Aedespread*)
 Funding agency: Ministero della Salute – Bando Ricerca Finalizzata anno 2010
 Total amount funded: € 210 700
 Role in the project: Partner’s investigator
- 2011-2014 | Project title: European West Nile R&D collaborative project (*EuroWestNile*)
 Funding agency: European Commission – 7th Framework Programme
 Total amount funded: € 3 923 032
 Role in the project: Work-package principal investigator
- 2011-2014 | Project title: Biology and control of vector-borne infections in Europe (*EDENext*)
 Funding agency: European Commission – 7th Framework Programme
 Total amount funded: € 11 981 710
 Role in the project: Partner’s investigator
- 2008-2011 | Project title: Alpine ecosystems in a changing environment: biodiversity sensitivity and adaptive potential (*ACE-SAP*)
 Funding agency: Autonomous Province of Trento – Bando Fondo Unico per i progetti di ricerca
 Total amount funded: € 2 732 736
 Role in the project: Work-package principal investigator

- 2004-2010 | Project title: Emerging Diseases in a Changing European Environment (*EDEN*)
Funding agency: European Commission – 6th Framework Programme
Total amount funded: € 11 497 856
Role in the project: Partner’s investigator
- 2004-2007 | Project Title: “Modelling the spatio-temporal dynamics of zoonotic wildlife infections (*MOSTWIN*)”
Funding agency: Autonomous Province of Trento - Bando Post-doc per giovani ricercatori
Total amount funded: € 145 000
Role in the project: Project’s principal Investigator
- 2001-2003 | Project Title: “Ecology and control of some zoonotic wildlife diseases (*ECODIS*)”
Funding agency: Autonomous Province of Trento - Bando Fondo Unico per i progetti di ricerca
Total amount funded: € 498 533
Role in the project: Partner’s investigator

Brief summary of the carrier

After receiving my degree in Mathematics from the University of Trento (Italy) in 1994 (title of the M.Sc. thesis: “Modelli di epidemia da macroparassiti”) I was granted a fellowship in Mathematical Biology at the Centre for Alpine Ecology (Trento), ranked among the best 10 research institute in Italy [Scientometrics (2011) 88:599-615; DOI 10.1007/s11192-011-0406-x]. At the beginning of my career, my main research activity was the development and analysis of models for host-macroparasite interactions. After that fellowship, I continued to work as research collaborator at the Centre for Alpine Ecology in the field of mathematical and statistical modelling applied to host-parasite interactions. Afterwards, thanks to the funded project *ECODIS* (Ecology and control of some zoonotic wildlife diseases) I obtained a PhD grant at the University of Stirling (Scotland, UK) where I received my PhD in Biology in 2003 defending the thesis “The importance of aggregation in the dynamics of host-parasite interaction in wildlife: a mathematical approach”. From 2003 to 2007 I worked as post-doc researcher at the Centre for Alpine Ecology as Principal Investigator of the project “Modelling the spatio-temporal dynamics of zoonotic wildlife infections”, funded by the Autonomous Province of Trento (Bando Post-doc per giovani ricercatori). From 2008 to 2018, I worked as a permanent senior researcher at Fondazione Edmund Mach (FEM) in San Michele all’Adige (TN), Italy. At the end of 2018 I obtained a permanent position as Associate Professor in animal infectious and parasitic diseases (07/H3), within the disciplinary scientific sector VET/06 (infectious and parasitic diseases of animals), at the Centre Agriculture Food Environment (C3A) of the University of Trento (Italy). My main scientific interest focuses on modelling the interactions between ecology and epidemiology of infectious and parasitic diseases especially in wildlife populations. I have been working mostly on host-parasite interactions and vector-borne disease models. My publication list contains several peer-reviewed papers (86 papers cited in ISI Web of Science with a sum of citations=1713 and an h-index=25; 79 papers cited in Scopus with a sum of citations=1836 and an h-index=25; 172 papers cited in Google Scholar with a sum of citations=2998 and an h-index=30). I am a reviewer for several peer-reviewed journals, including Journal of Mathematical Biology, Bulletin of Mathematical Biology, Ecological Modelling, Mathematical Biosciences, Journal of Theoretical Biology, PLoS Computational Biology, PloS Neglected and Tropical Diseases, Parasites & Vectors and Vector-Borne and Zoonotic Diseases. During my senior career I have continuously tutored masters and PhD students from various Italian and international Universities. I have been involved in several international research projects: EU-FP6 project *EDEN* “Emerging Diseases in a Changing European Environment”; EU-FP7 projects *EDENext* “Biology and control of

vector-borne infections in Europe” and *EuroWestNile* “European West Nile R&D collaborative project”; EU-H2020 project *ZIKAlliance* “A global alliance for Zika virus control and prevention”; EU-H2020 project *MOOD* “Monitoring Outbreak events for Disease surveillance in a data science context”; EU-COST Open Call project *AIM* “Aedes Invasive Mosquitoes”. In these projects I have been leading data analysis and modelling activities.

Publications

Scientometrics

Publons ResearcherID: AAB-4479-2021
 Scopus Author Identifier: 57193601228
 Orchid Identifier: 0000-0002-8655-2230

- *Publons (Web of Science)*
 - *Number of papers: 86;*
 - *Sum of the Times Cited: 1713;*
 - *h-index: 25;*
 - *Cumulative IF: 260.7*
- *Other metrics:*
 - *Google Scholar: Number of papers 172; Times cited 2998; h-index: 30.*
 - *Scopus: Number of papers 79, Sum of the Times Cited 1836; h-index 25.*

List of ISI Publications

- 1 Marini G., Manica M., Delucchi L., Pugliese A. and Rosà R. 2021. Spring temperature shapes West Nile virus transmission in Europe. *Acta Tropica* 215:105796.
- 2 Marini G., Manica M., Arnoldi D., Inama E., Rosà R. and Rizzoli A. 2020. Influence of temperature on the life-cycle dynamics of *Aedes albopictus* population established at temperate latitudes: a laboratory experiment. *Insects* 11:808.
- 3 Guzzetta G., Vairo F., Mammone A., Lanini S., Poletti P., Manica M., Rosà R., Caputo B., Solimini A., Della Torre A., Scognamiglio P., Zumla A., Ippolito G. and Merler S. 2020. Spatial modes for transmission of Chikungunya virus during a large chikungunya outbreak in Italy: a modelling analysis. *BMC Medicine* 18:226.
- 4 Fevola C., Rossi C, Rosso F., Girardi M. Rosà R., Manica M., Delucchi L., Rocchini D., Garzon-Lopez C.X., Arnoldi D., Bianchi A., Buzan E., Charbonnel N., Collini M., Ďureje L., Ecke F., Ferrari N., Fischer S., Gillingham E.L., Hörnfeldt B., Kazimírová M., Konečný A., Maas M., Magnusson M., Miller A., Niemima J., Nordström Å., Obiegala A., Olsson G., Pedrini P., Piálek J., Reusken C.B., Rizzolli F., Romeo C., Silaghi C., Sironen T., Stanko M., Tagliapietra V., Ulrich R.G., Vapalahti O., Voutilainen L., Wauters L., Rizzoli A., Vaheri A., Jääskeläinen A.J., Henttonen H. and Hauffe H.C. 2020. Geographical Distribution of Ljungan Virus in Small Mammals in Europe. *VectorBorne Zoonotic Diseases* 20:692-702.
- 5 Barelli C., Pařčo B., Mattia M., Rovero F., Rosà R., Modrý D. and Hauffe H.C. 2020. Loss of protozoan and metazoan intestinal symbiont biodiversity in wild primates living in unprotected forests. *Scientific Reports* 10:10917.

- 6 Marini G., Calzolari M., Angelini P., Bellini R., Bellini S., Bolzoni L., Torri D., Defilippo F., Dorigatti I., Nikolay N., Pugliese A., Rosà R., Tamba M. 2020. A quantitative comparison of West Nile virus incidence from 2013 to 2018 in Emilia-Romagna, Italy. *PLoS Neglected Tropical Diseases* 14: e0007953.
- 7 Marini G., Arnoldi A., Baldacchino F., Capelli G., Guzzetta G., Merler S., Montarsi F., Rizzoli A. and Rosà R. 2019. First report of the influence of temperature on the bionomics and population dynamics of *Aedes koreicus*, a new invasive alien species in Europe. *Parasites & Vectors* 12:524.
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Book chapters

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Selected presentations at conferences

- 1 Marini G., Calzolari M., Dorigatti I., Nikolay B., Pugliese A., Tamba M. and Rosà R. Modelling the transmission dynamics of West Nile virus in Emilia-Romagna region (Italy) Invited speaker at 11th International Conference 'Dynamical Systems Applied to Biology and natural Science', Trento (Italy), 4th-7th February 2020.
- 2 Rosà R., Tagliapietra V., Arnoldi D., Hauffe H.C., Manica M., Rossi C., Rosso F. and Rizzoli A. Early warning of tick-borne encephalitis: climatic variables and rodent density successfully explain *Ixodes ricinus* co-feeding transmission in northern Italy. Oral presentation at 21st E-SOVE Conference, Palermo (Italy), 22nd-26th October 2018.
- 3 Rosà R. and Rizzoli A. Surveillance, monitoring and mathematical models to estimate the transmission risk of invasive mosquitoes-borne infections in Trentino (northern Italy). Invited speaker at 72 Conference of the Italian Society of the Veterinary Sciences. Torino (Italy), 20-22 June 2018.

- 4 Rosà R. Quantitative methods in epidemiology to inform early warning systems: vector-borne zoonoses as case studies. Invited speaker at XLI Conference of Italian Epidemiology Association. Mantova (Italy), 25-27 October 2017.
- 5 Rosà R., Marini G., Guzzetta G., Baldacchino F., Arnoldi D., Montarsi F., Capelli G., Rizzoli A. and Merler S. Temporal dynamics of *Aedes albopictus* and *Culex pipiens* in northern Italy: the effect of interspecific competition. Invited speaker at Third International Workshop on *Aedes albopictus*, Pavia (Italy), 9-12 April 2017.
- 6 Rosà R., Bolzoni L., Cagnacci F., Hauffe H.C., Tagliapietra V., Ferreri L., Giacobini M., Kazimirova M., Henttonen H. and Rizzoli A. Modelling the effects of tick-host interaction on pathogen dynamics: TBE as a case study. Oral presentation at Ecology at the Interface (EEF-SitE) Conference, Roma (Italy), 21-25 September, 2015.
- 7 Rosà R., Marini G., Bolzoni L., Neteler M., Metz M., Delucchi L., Chadwick E.A., Balbo L., Mosca A., Giacobini M., Bertolotti L., Rizzoli A. Early warning of West Nile virus mosquito vector. Oral presentation at Joint Conference: German Symposium On Zoonoses Research 2014 and 7th International Conference On Emerging Zoonoses, Berlin October 16-17, 2014.
- 8 Rosà R., Bolzoni L., Rosso F., Rizzoli A., Pugliese A., Hudson P.J. Modelling the impact of helminth parasites on rock partridge population dynamics. Oral presentation at 8th European Conference on Mathematical and Theoretical Biology. Krakow (Poland), June 2011.
- 9 Rosà R., Bolzoni L., Cagnacci F. and Rizzoli A. Effect of deer density on tick-borne encephalitis dynamics. Oral presentation at 7th European Conference on Ecological Modelling. Riva del Garda (TN), Italy, May 2011.
- 10 Rosà R., Bolzoni L., Cagnacci F. and Rizzoli A. Effect of deer density on tick-borne encephalitis dynamics: empirical and theoretical assessment. Oral presentation at XX Congresso Società Italiana di Ecologia. Roma (Italy), September 2010.
- 11 Rosà R. and Pugliese A. Modelling seasonality in tick-borne infections. Oral presentation at the European Conference of Mathematical and Theoretical Biology. Edinburgh (UK), July 2008.
- 12 Rosà R., Rizzoli A., Ghosh M., Perkins S.E. and Pugliese A. Influence of rodent density and climatic variables on tick population dynamics in northern Italy. Oral presentation at 5th European Congress of Mammalogy. Siena (Italy), September 2007.
- 13 Rosà R., Pugliese A., Hudson P.J. and Rizzoli A. Modelling tick-borne encephalitis in Trentino (northern Italy). Oral presentation at VIIth Conference of the European Wildlife Diseases Association (EWDA). Sant-Vincent (AO) Italy, September 2006.
- 14 Rosà R., N.Ferrari N., Pugliese A. and Rizzoli A. Effect of host sex on the dynamics of *Heligmosomoides polygyrus*- *Apodemus flavicollis* interaction: a modelling approach. Oral presentation at 10th Rodens and Spatium - The International Conference on Rodent Biology. Parma (Italy), July 2006.
- 15 Rosà R. Persistence of tick-borne infections under different modelling assumptions. Oral presentation at Marrakesh World Conference on Differential Equations and Applications. Marrakesh (Maroc), June 2006.
- 16 Rosà R., Rizzoli A., Pugliese A., Perkins S.E and Hudson P.J. Influence of host densities on tick-borne infections: the case of tick-borne encephalitis. Oral presentation at 5th International Conference on Ticks and Tick-borne Pathogens. Neûchatel (Switzerland), September 2005.

- 17 Rosà R., Ferrari N. and Pugliese A. The role of sex in parasite dynamics: model simulations on *Heligmosomoides polygyrus* transmission in yellow-necked mouse populations. Oral presentation at 6th European Conference of Mathematical and Theoretical Biology. Dresden (Germany), July 2005.
- 18 Rosà R., Rizzoli A., Pugliese A. and Hudson P.J. The role of host biodiversity, density and transmission routes in generating non-linearities in tick borne infections. Oral presentation at 53rd Annual Meeting of the Wildlife Disease Association. San Diego, California (USA), September 2004.
- 19 Rosà R., Rizzoli A., Pugliese A. and Hudson P.J. Tick borne diseases and host density: persistence of Lyme disease and tick-borne encephalitis in Trentino. Oral presentation at Computational and Mathematical Population Dynamics Conference. Trento (Italy), June 2004.
- 20 Rosà R., Pugliese A., Gosh M., Norman R. and Hudson P.J. Modelling the dynamics of Lyme Disease and Tick-borne Encephalitis in Trentino (northern Italy). Oral presentation at 2nd International Conference on Mathematical Ecology. Alcalà de Henares (Spain), September 2003.
- 21 Rosà R., Pugliese A., Villani A. and Rizzoli. Individual-based vs. deterministic models for macroparasites: host cycles and extinction. Oral presentation at 5th Meeting of European Society for Mathematical and Theoretical Biology. Milano (Italy), July 2002.
- 22 Rosà R., Norman R., Pugliese A., Rizzoli A. and Hudson P.J. A model for tick-borne infections with viraemic and non-viraemic transmission. Oral presentation at 18th Conference of World Association for the Advancement of Veterinary Parasitology. Stresa (VB), Italy, August 2001.
- 23 Rosà R., Pugliese A. A comparison among models for macroparasite-host interactions. Oral presentation at 4th Meeting of European Society for Mathematical and Theoretical Biology. Amsterdam (Netherlands), July 1999.

Organization of conferences and workshops

- 1 Data Analysis Workshop 'Harmonising and reporting AIMSURV2020 field data' within AIM COST Action CA17108. 14th December 2020 – 26th April 2021. Online workshop.
- 2 11th International Conference 'Dynamical Systems Applied to Biology and natural Science' DSABNS 2020, Trento (Italy), 4th-7th February 2020.
- 3 International Conference "Facing the invasion of alien arthropods species: ecology, modelling and control of their economic impact and public health implications". Trento (Italy), November 2016.
- 4 International Workshop "Ecology of invasion: facing the impact of alien species and their transmitted pathogens in the Anthropocene". Riva del Garda (TN), Italy, July 2015.
- 5 WWMB2009 - White Workshop on Mathematical Biology. Trento (Italy), December 2009.
- 6 International Workshop "The Ecology of Zoonoses". Centro di Ecologia Alpina, Viote del Monte Bondone (TN), Italy, July 2006.
- 7 International Workshop "Mathematical modelling applied to emerging disease models" within EU FP6 PROJECT EDEN "Emerging Diseases in a changing European Environment. Woudschoten, The Netherlands, 23-25 June 2005.
- 7 International Workshop "The Ecology of Wildlife Diseases". Centro di Ecologia Alpina, Viote del Monte Bondone (TN), Italy, July 1998.

Other research roles and responsibilities

- 1 Scientific representative of Fondazione Edmund Mach (FEM) and member of the Managing Committee of the Joint Research Unit (JRU) named "EPILAB - Laboratory of quantitative Epidemiology of emerging diseases" constituted by FEM and Fondazione Bruno Kessler (Trento). Period: 2018-2019.
- 2 Scientific representative of Fondazione Edmund Mach (FEM) and member of the Monitoring Committee of the "Scientific collaboration agreement for surveillance activities on West Nile virus in Emilia Romagna" constituted by IZLER (Brescia), Institut Pasteur (Parigi, France), Imperial College (London, UK), University of Trento and FEM. Period: 2018-2020.
- 3 Member of the "Scientific task-force for the control of tiger mosquito and other invasive mosquitoes on the territory of the Autonomous Province of Trento (Italy)" coordinated by Fondazione Edmund Mach. Period: 2017-2019.
- 4 Scientific representative of Fondazione Edmund Mach (FEM) of the Research Agreement "*Aedes albopictus* monitoring plan for Comunità Alto Garda e Ledro, Trentino, Italy" constituted by C.AGeL and FEM. Period: May 2016-November 2016.

Riva del Garda (TN), 3rd May 2021

Roberto Rosà

