

Academic Activities—Charlotte M. Jones-Todd

Invited Talks

Where the whales sing <i>Statistics Teacher's Day, University of Auckland, NZ</i>	December 3rd 2022
Modelling spatiotemporal point patterns: a new era of point process models <i>New Zealand Statistical Association Conference, Auckland, NZ</i>	November 22nd 2022
Where the whales sing <i>Guest lecture TFCSTATS, University of Auckland, NZ</i>	August 10th 2022
The role of random fields in modelling spatiotemporal point patterns <i>International Conference on Advances in Interdisciplinary Statistics and Combinatorics, The University of North Carolina at Greensboro (via Zoom)</i>	October 8th 2021
Making sense of patterns and connecting the dots in Area ΣI <i>Faculty of Science International Open Day, University of Auckland, NZ</i>	August 31st 2021
Modelling latent phenomena in point referenced data <i>Department of Mathematics & Statistics, Australian National University (via Zoom)</i>	June 24th 2021
Point patterns in a point pattern world <i>Research Showcase, School of Biological Sciences, University of Auckland, NZ</i>	November 17th 2020
Getting to the point of log-Gaussian Cox processes <i>Department of Mathematics & Statistics, University of Glasgow (via Zoom)</i>	October 24th 2020
Me, myself, and R <i>R-Ladies, Auckland, NZ</i>	July 21st 2020
A time to kill: Great British serial killers <i>Royal Statistical Society Conference, Glasgow, Scotland</i>	September 5th 2017
Why spatial models are useful in ecology (understanding the mechanics of dots) <i>Statistische Woche, Hamburg, Germany</i>	September 15th 2015
Easy on the eyes: A spatio-temporal analysis of eye movement <i>Royal Statistical Society Conference, Exeter, UK</i>	September 9th 2015
INLA & SPDEs: Using latent Gaussian models to infer the spatial structure inherent in point patterns <i>University of Lisbon, Portugal</i>	April 1st 2015
Using INLA to fit complex spatial models to ecological data <i>University of Lisbon, Portugal</i>	April 1st 2015

Other Conference Talks, Seminars, and Presentations

The R package stelfi <i>Spatial Statistics, Denver, USA</i>	July 19th 2023
Self-exciting point process models and their use in ecology <i>Department of Mathematics & Statistics, University of Glasgow</i>	July 4th 2022
ChatGPT in the classroom <i>School of Biological Science, University of Auckland, Auckland, NZ</i>	May 22nd 2022
The R package stelfi <i>International Statistical Ecology Conference (ISEC), South Africa</i>	June 27th 2022
Modelling point referenced data <i>virtual National Centre for Statistical Ecology (vNCSE)</i>	June 17th 2021
Systematic effects and latent phenomena in point referenced data <i>virtual Australia and New Zealand Statistical Conference (vANZSC)</i>	July 5th 2021
Modelling point referenced data <i>virtual National Centre for Statistical Ecology (vNCSE)</i>	June 17th 2021
A discrete-space continuous-time model for marine mammal exposure to Navy sonar <i>New Zealand Statistical Association (NZSA) conference, Auckland, NZ</i>	November 24th 2020
Modelling systematic effects and latent phenomena in point referenced data <i>Statistical ecology group, Department of Statistics, University of Auckland, NZ</i>	November 17th 2020
Marine mammal exposure to Navy sonar: a continuous-time discrete-space model <i>virtual International Statistical Ecology Conference (vISEC)</i>	June 26th 2020
Animating statistical theory <i>satRdays, Auckland, NZ</i>	February 22nd 2020
Modelling systematic effects and latent phenomena in point referenced data <i>School of Biological Sciences, University of Auckland, NZ</i>	December 6th 2019
Marine mammal exposure to Navy sonar: a continuous-time discrete-space model <i>Statistics in Ecology and Environmental Monitoring (SEEM) Conference, Wellington, NZ</i>	December 2nd 2019
Shared latent fields for mark-dependence in a log-Gaussian Cox process <i>Australasian Applied Statistics Conference (AASC), Rotorua, NZ</i>	December 4th 2018
Shared latent fields for mark-dependence in a log-Gaussian Cox process <i>International Statistical Ecology Conference (ISEC), St Andrews, Scotland</i>	July 4th 2018
Spatial modelling (INLA and some other stuff) <i>NIWA, Wellington, NZ</i>	March 16th 2018
How spatial modelling works <i>NIWA, Hamilton, NZ</i>	February 20th 2018
Modelling spatio-temporal data <i>CREEM, University of St Andrews, Scotland</i>	September 21st 2016

Modelling unusual spatial structures: An application to colorectal cancer data <i>University of Cape Town, South Africa</i>	July 25th 2016
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A spatio-temporal marked point process model <i>International Statistical Ecology Conference (ISEC), Seattle, USA</i>	July 1st 2016
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A spatio-temporal multi-species model <i>NCSE summer meeting, Falmouth, UK</i>	June 29th 2015
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Terrorism in space and time <i>Spatial Statistics: Emerging Patterns, Avignon, France</i>	June 12th 2015
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Spatio-temporal modelling <i>Geo-Environmental Modelling Symposium, University of St Andrews, Scotland</i>	April 30th 2015
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Spatial modelling: Its use in predictive policing <i>Workshop on Crime Pattern Analysis and Predictive Policing, Dundee, Scotland</i>	April 28th 2015
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INLA & SPDEs: Using latent Gaussian models to infer the spatial structure inherent in point patterns <i>University of Lisbon, Portugal</i>	April 1st 2015
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Using latent Gaussian models to infer the spatial structure inherent in point patterns <i>CREEM, University of St Andrews, Scotland</i>	January 1st 2015
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Spatial / spatio-temporal modelling <i>CREEM, University of St Andrews, Scotland</i>	August 29th 2014
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The use of spatio-temporal models in intelligence-led policing <i>37th Research Students' Conference in Probability and Statistics, Nottingham, UK</i>	April 30th 2014
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Fitting a spatial model to Atlantic salmon fry abundance data, using integrated nested Laplace approximation <i>CREEM, University of St Andrews, Scotland</i>	August 2013

Posters

A Bayesian approach to modelling fine-scale spatial dynamics of non-state terrorism: world study, 2002-2013

June 13th 2016

International Society for Bayesian Analysis (ISBA) conference

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Did “Operation Iraqi Freedom” work?

December 3rd 2015

(A joint marked point process modelling approach)

Challenges and Perspectives in Modelling the Spatial Dynamics of Conflict and Terrorism, University of St Andrews, Scotland

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Where did all the points go?

June 9th–12th 2015

Spatial Statistics: Emerging Patterns, Avignon, France

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The use of spatio-temporal ecological models in predictive policing

July 1st–4th 2014

International Statistical Ecology Conference (ISEC), Montpellier, France

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Preventing crime through spatial modelling

November 13th 2013

Scottish Institute for Policing Research Meeting, Edinburgh, Scotland

Other Conferences/Workshops Attended

The International Association for Statistical Education (IASE)

Virtual Satellite Conference

August 30th–September 4th 2021

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What Are The Odds?

An Interactive Workshop in Sports Modelling, Exeter, UK

July 7th–8th 2016

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Flexible Programming with BUGS Models (NIMBLE), Seattle, USA

June 27th 2016

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Ecological Survey Spatial Modelling (ESSMod), St Andrews, Scotland

March 21st–22nd 2016

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Software Carpentry, St Andrews, Scotland

June 18th–19th 2015

Teaching

Teaching at the University of Auckland

BIOSCI738 - Advanced Biological Data Analysis 2021–2022
University of Auckland.

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BIOSCI220 - Quantitative Biology 2020–2022
University of Auckland.

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STATS210 - Statistical Theory 2019
Southwest University (SWU), Chongqing, China.

Other teaching

Spatial Statistics - Australian Mathematical Sciences Institute (AMSI) 2023
University of Melbourne.

Tutoring at the University of St Andrews

Centre for Academic, Professional and Organisational Development
(CAPOD) **Course tutor - using R for statistics** 2015–2016

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Centre for Academic, Professional and Organisational Development
(CAPOD) **mathematics and statistics support** 2013–2016

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MT1007 - Statistics in Practice 2014

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MT2004 - Statistics 2014

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MT1002 - Mathematics 2014

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MT5753 - Statistical Modelling 2013

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MT1001 - Introductory Mathematics 2013

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MT1008 - Mathematical Information Technology 2013

Workshops

Statistics and R

Instructor

NIWA, Hamilton, NZ

November–December 2018

Keep going with Git

Instructor

NIWA, Hamilton, NZ

September 6th 2018

Make your R code shiny

Instructor

NIWA, Hamilton, NZ

May 10th 2018

Get going with Git

Instructor

NIWA, Hamilton, NZ

March 15th 2018

Introductory statistics course

Tutor

The Namibia University of Science and Technology, Namibia

August 2nd–5th 2016

Statistics for spatio-temporal data: INLA and SECR

Instructor & Demonstrator

Stellenbosch University, South Africa

July 27th 2016

Challenges and perspectives in modelling the spatial dynamics of conflict and terrorism

Presenter

University of St Andrews, Scotland

December 3rd 2015

Using INLA to fit complex spatial models to ecological data

Instructor

University of Lisbon, Portugal

April 1st 2015

Minicourse: The SPDE approach flexible spatial modelling in practice

Instructor

CREEM University of St Andrews, Scotland

Dec 3rd 2014

Using the integrated nested Laplace approximation approach to fit complex ecological models

Demonstrator

International Statistical Ecology Conference (ISEC), Montpellier, France

June 28th 2014

Spatial modelling with INLA

Demonstrator

CREEM University of St Andrews, Scotland

June 2nd–4th 2014

Other

Centre for Academic, Professional and Organisational Development
(CAPOD) **Dissertation support**

2014–2015

Student Support worker **Note-taker and examination scribe/reader**

2014–2016

Centre for Academic, Professional and Organisational Development
(CAPOD) **Redesign of statistical support website**

2013

School of Mathematics and Statistics

Undergraduate module marking

2013–2016