Publications list Edzer Pebesma

October 5, 2017

Contents

1 International journals

1. Meng Lu, Eliakim Hamunyela, Jan Verbesselt, Edzer Pebesma, 2017. Dimension reduction of multi-spectral satellite image time series to improve deforestation monitoring. Remote Sensing 9(10), 1025.

2. S. Gebbert, E. Pebesma, 2017. The GRASS GIS temporal framework. International Journal of Geographic Information Systems, 31 (7), pp 1273-1292.

3. Daniel Nüst, Markus Konkol, Marc Schutzeichel, Edzer Pebesma, Christian Kray, Holger Przibytzin, Jörg Lorenz, 2017. Opening the Publication Process with Executable Research Compendia. D-Lib Magazin. https://doi.org/10.1045/january2017-nuest .

4. Edzer Pebesma, Thomas Mailund, James Hiebert, 2017. Measurement units in R. The R Journal, 8-2, 486-494.

5. C. Knoth, E. Pebesma, 2017. Detecting dwelling destruction in Darfur through object-based change analysis of very-high-resolution imagery. International Journal of Remote Sensing 38 (1) 273-295.

6. Benedikt Gräler, Edzer Pebesma and Gerard Heuvelink, 2016. Spatio-Temporal Interpolation using gstat. The R Journal 8(1), 204-218

7. S. Scheider, B. Gräler, E. Pebesma, C. Stasch, 2016. Modelling spatio-temporal information generation. Int J of Geographic Information Science, 30 (10), 1980-2008 (recommended pdf).

8. M. Lu, E. Pebesma, A. Sanchez, J. Verbesselt, 2016. Spatio-temporal change detection from multidimensional arrays: detecting deforestation from MODIS time series. ISPRS Journal of Photogrammetry and Remote Sensing, 117, 227–236 (pdf).

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47. Pebesma, E.J., P. Switzer, K. Loague, 2007. Error analysis for the evaluation of model performance: Rainfall-runoff event summary variables. Hydrological Processes 21, 3009-3024.

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2 Conference papers

1. Avipsa Roy, Edzer Pebesm, 2017. A Machine Learning Approach to Demographic Prediction using Geohashes. SocialSens'17 Proceedings of the 2nd International Workshop on Social Sensing, Pittsburgh, PA, USA — April 18 - 21, 2017, Pages 15-20 https://dl.acm.org/citation.cfm?id=3055603

2. Luiz Gustavo Diniz, Merret Buurman, Pedro R. Andrade, Gilberto Câmara, Edzer Pebesma, 2013. Measuring Allocation Errors in Land Change Models in Amazonia. Proceedings GeoINFO 2013, Nov 24-27, Campos do Jordão, Br.

3. Marcio Pupin Mello, Daniel Alves Aguiar, Bernardo Friedrich Theodor Rudorff, Edzer Pebesma, Jim Jones, Naiara Carolina Pontes Santos. Spatial statistic to assess remote sensing acreage estimates: an analysis of sugarcane in São Paulo state, Brazil. IGARSS 2013, Jul 21-16, Melbourne, Australia.

4. Matthias Hinz, Daniel Nüst, Benjamin Proß, Edzer Pebesma, 2013. Spatial Statistics on the Geospatial Web. Short paper, AGILE 2013.

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12. Giovana M. de Espindola, Edzer Pebesma, Gilberto Câmara, 2011. Spatio-temporal regression models for deforestation in the Brazilian Amazon. STDM 2011, The International Symposium on Spatial-Temporal Analysis and Data Mining, University College London - 18th-20th July 2011 pdf

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47. Refsgaard, J.C., M. Thorsen, J.B. Jensen, S. Hansen, G. Heuvelink, E. Pebesma, S. Kleeschulte, D. Ramaekers, 1998. Uncertainty in Spatial Decision Support Systems - Methodology related to Prediction of Groundwater Pollution. In: V. Bavonic and L.C. Larsen (Eds) Proceedings of the Third International Conference Hydroinformatics 98,

held in Copenhagen August 24-26, 1998. Vol.2, 1151-1158. Balkema Publishers Rotterdam.

48. Heuvelink, G.B.M., P. Musters and E.J. Pebesma, 1997. Spatio-temporal modelling of soil water content. In: Baaffi, E., and Schofield, N., eds. Geostatistics Wollongong 1996, Vol. 2: Kluwer Academic Publ., Dordrecht, p. 1020-1030.

49. Pebesma, E.J., J.W. de Kwaadsteniet, 1997. Mapping spatial and temporal variation of groundwater quality in the Netherlands. In: A. Soares, J. Gomez-Hernandez, and R. Froidevaux, eds. GeoENV I – geostatistics for environmental applications. Kluwer Academic Publ., Dordrecht, p. 111-122.

3 Conference/meeting (extended) abstracts or posters

1. Verbesselt, Jan; Pebesma, Edzer; Hamunyela, Eliakim; Reiche, Johannes; DeVries, Ben; Dutrieux, Loic; Tsendbazar, Nandin-Erdene; Herold, Martin, accepted. Open Source Software For Change Monitoring Using Satellite Image Time Series: Overview, Challenges And Solutions. Earth Observation Open Science 2017 Conference (ESRIN, Frascati, 25-28 September 2017)

2. Joshi, Jigeeshu; Edzer Pebesma, Marius Appel, 2017. Evaluation of Array Database to Manage and Query Massive Sensor Data. Earth Observation Open Science 2017 Conference (ESRIN, Frascati, 25-28 September 2017)

3. Edzer Pebesma, Etienne Racine, Michael Sumner, 2017. Scalable, Spatiotemporal Tidy Arrays for R (stars). UseR! 2017, Jul 4-7 2017, Brussels, Belgium.

4. Spatio–temporal point patterns analysis of geolocated tweets to characterise urban dynamics. Fernando Santa, Roberto Henriques, Joaquin Torres, Edzer Pebesma, 2017. Spatial Statistics, Jul 4-7 2017, Lancaster, UK.

5. Benedikt Gräler, Christoph Stasch, Benedikt Gräler, Edzer Pebesma, 2017. EnviroCar - community driven open data car trajectories. Poster, Spatial Statistics, Jul 4-7 2017, Lancaster, UK.

6. Shivam Gupta, Edzer Pebesma, Jorge Mateu, 2017. Air quality monitoring network location optimization for robust Land Use Regression Model. Poster, Spatial Statistics, Jul 4-7 2017, Lancaster, UK.

7. Edzer Pebesma, 2017. Using R for large spatiotemporal data sets. EGU, PICO session EGU2017-6585 (slides).

8. Marius Appel, Daniel Nüst, and Edzer Pebesma, 2017. Reproducible Earth observation analytics: challenges, ideas, and a study case on containerized land use change detection. EGU2017-17610 abstract

9. Meng Lu, Marius Appel, Edzer Pebesma, 2017. Modelling spatiotemporal change using multidimensional arrays. EGU IE3.1/BG9.58; EGU2017-17610

10. Teresa Rojas Rojas, Rafael Vives, Dorothea Lemke, Carlos Castañeda, Nancy Hidalgo, Gérard Cochonneau, Aníbal Sánchez, Eric Deharo, Javier Herrera, Edzer Pebesma, Xavier Deparis, Stéphane Bertani, 2016. Epidemiology and spatial analysis of cancer in Peru. Abstract, 2016 World Cancer Congress, Paris, Oct 31-Nov 3, 2016 / SS-1282

11. Sidhu, Nanki; Pebesma, Edzer; Câmara, Gilberto, 2016. Exploring land use change in Singapore using Google Earth Engine. 6th EARSeL SIG LU/LC & 2nd EARSeL LULC/NASA LCLUC Workshop.

12. Pebesma, E., 2016. Spatial data in R: simple features and future perspectives. UseR!, The R User Conference 2016, Stanford, Jun 27-30, 2016 (pdf).

13. Marek Smid, Ana Cristina Costa, Edzer Pebesma, Carlos Granell. A review of downscaling procedures – a contribution to the research on climate change impacts at city scale by Marek Smid et al. EGU 2016, CL5.12/AS1.3/OS4.10; EGU2016-6768.

14. Daniel Nüst, Markus Konkol, Edzer Pebesma, Christian Kray, Stephanie Klötgen, Marc Schutzeichel, Jörg Lorenz, Holger Przibytzin, Dirk Kussmann. Opening Reproducible Research. EGU 2016; ESSI3.6; EGU2016-7396.

15. Edzer Pebesma, Simon Scheider, Benedikt Gräler, Christoph Stasch, and Matthias Hinz. An algebra for spatio-temporal information generation. EGU 2016, ESSI2.5; EGU2016-9523. (pdf)

16. Marius Appel, Florian Lahn, Edzer Pebesma, Wouter Buytaert and Simon Moulds. Scalable Earth-observation Analytics for Geoscientists: Spacetime Extensions to the Array Database SciDB EGU 2016, ESSI3.1; EGU2016-11780.

17. M. Appel, E. Pebesma, G. Câmara, 2015. Scalable In-Database Regression Analysis of Large Earth-Observation Datasets. EO Open Science 2.0 workshop at ESA-ESRIN, Frascati IT, Oct 12-16, 2015.

18. D. Lemke, S. Berkemeyer, V. Mattauch, O. Heidinger, E. Pebesma, H-W. Hense. Small-area, spatio-temporal analyses of participation rates in the mammography screening program in the city of Dortmund (NW Germany). 10. Jahrestagung der Deutschen Gesellschaft für Epidemiologie 30. September bis 2. Oktober 2015.

19. E. Pebesma, 2015. Spatial Statistics' New Frontiers. Oral presentation at *The 17th Annual Conference fo the International Association for Mathematical Geosciences* (IAMG 2015), Freiberg, Sept 5-13, 2015 (pdf).

20. W. Buytaert, S. Moulds, J. Skøien, E. Pebesma, D. Reusser, 2015. Facilitating hydrological data analysis workflows in R: the RHydro package. EGU 2015, session HS3.3

21. J.O. Skøien, G. Blöschl, Gregor Laaha, J. Parajka, E. Pebesma, A. Viglione, 2015. Developments of rtop – interpolation and simulation of data with a variable spatial support. EGU 2015, session HS3.3.

22. Meng Lu, Edzer Pebesma, 2015. Spatio-temporal change modeling with array data. EGU session ESSI2.5/SSS11.10.

23. Edzer Pebesma, 2014. Analyzing Geoscientific Data with R: Past, Present, Future. AGU fall meeting, IN22A-01.

24. Stasch, C., D. Nüst, M. Rieke, A. Remke, E. Pebesma, 2014. enviroCar – Open car data and open analysis tools for sustainable transportation development. The international conferences ICT4S - ICT for Sustainability. Stockholm, Sweden 24-27 August 2014. `http://2014.ict4s.org/`.

25. C. Knoth, E. Pebesma, 2014. Detecting Destruction in Conflict Areas in Darfur. GEOBIA 2014 - Geographic Object Based Image Analysis; Thessaloniki, Greece

26. Meng Lu and Edzer Pebesma, 2014. Modeling change from large-scale high-dimensional spatio-temporal array data. EGU General Assembly 2014, session ESSI2.6.

27. Christoph Stasch, Simon Scheider, Edzer Pebesma, 2014. Annotating spatio-temporal datasets for meaningful analysis in the Web. EGU General Assembly 2014, session ESSI2.2.

28. Florian Lahn, Christian Knoth, Kristina Helle, Torsten Prinz and Edzer Pebesma, 2014. Developing an open source-based spatial data infrastructure for integrated monitoring of mining areas. EGU General Assembly 2014, session ESSI2.7.

29. E. Pebesma, 2014. HydRology. EGU General Assembly 2014, session HS3.3, Open Source Computing in Hydrology.

30. Jairo A. Torres, Edzer Pebesma, 2013. State of R in Hydrological Modelling. 2nd OpenWater symposium, Brussels, September 16-17, 2013. (abstract, slides)

31. Phuong N. Truong, Gerard B.M. Heuvelink, Edzer Pebesma, Bayesian area-to-point kriging with expert elicitation of a prior for the point support variogram. Spatial Statistics 2013.

32. Pebesma, E., C. Stasch, S. Scheider, W. Kuhn: Towards meaningful spatial statistics. Spatial Statistics 2013. (Rnw file)

33. Pebesma, E., K.B. Helle, C. Stasch, S. Rasouli, H. Timmermans, S.-E. Walker, B. Denby, 2013. Uncertainty in exposure to air pollution. Geophysical Research Abstracts Vol. 15, EGU2013-8362, 2013 EGU General Assembly 2013

34. Skøien, J., G. Laaha, D. Koffler, G. Blöschl, E. Pebesma, J. Parajka, A. Viglione, 2013. Rtop – an R package for interpolation of data with a variable spatial support - examples from river networks. EGU General Assembly 2013

35. Demuth, D., D. Nuest, A. Bröring, E. Pebesma. The AirQuality SenseBox. Geophysical Research Abstracts Vol. 15, EGU2013-5146, 2013 EGU General Assembly 2013

36. Cornford, D., C. Stasch, E. Pebesma, R. Jones, L. Bastin, L. Bigagli, 2013. Building the "Uncertainty Enabled Model Web" – lessons learned, 2013. Geophysical Research Abstracts Vol. 15, EGU2013-7639, 2013 EGU General Assembly 2013

37. Rundel, C., R. Bivand, E. Pebesma. rgeos: spatial geometry predicates and topology operations in R. Abstract, UseR! 2012.

38. Nüst, D., E. Pebesma, 2012. R in the Sensor Web. Sensing a Changing World 2012; workshop, May 9-11, 2012, Wageningen.

39. Christoph Stasch, Richard Jones, Dan Cornford, Martin Kiesow, Matthew Williams, and Edzer Pebesma, 2012. Representing Uncertainties in the Sensor Web. Sensing a Changing World 2012; workshop, May 9-11, 2012, Wageningen.

40. Jon Olav Skøien, G. Blöschl, G. Laaha, E. J. Pebesma, J. Parajka, A. Viglione, 2012. Interpolating runoff-related variables with rtop. GEOSTATS 2012: Ninth International Geostatistics Congress, Oslo, Norway, June 11-15, 2012

41. Pebesma, E., 2012. R for reproducible geographical research. AAG meeting, N.Y., Feb 24-27, 2012.

42. Benecke, N., K. Zimmermann, A. Müterthies, K. Pakzad, S. Stephan, J. Kateloe, A. Preuße E. Pebesma, T. Prinz. 2012. GMES4Mining – Innovative Geoservices for Exploration and Monitoring of Mining Areas. In: Proceedings of the 7th International Symposium AIMS 2012. Aachen, 2012, p. 409-419

43. Gerharz, L.E., C. Autermann, H. Hopmann, C. Stasch, E. Pebesma, 2012. Uncertainty visualisation in the Model Web. Abstract; EGU General Assembly, 2012.

44. Gerharz, L.E., E. Pebesma, B. Denby, 2012. Assessing uncertain human exposure to ambient air pollution using environmental models in the Web. Abstract; EGU General Assembly, 2012.

45. Skøien, J.O., G. Laaha, D. Koffler, G. Blöschl, E. Pebesma, J. Parajka, A. Viglione, 2012. Rtop – an R package for interpolation along the stream network. Abstract; EGU General Assembly, 2012.

46. Proß, B., D. Cornford, L. Gerharz, R. Jones, E. Pebesma, C. Stasch, M. Williams, 2011. Are you sure? - Open Source Tools for Uncertainty Enabling the Model Web. http://2011.foss4g.org/sessions/are-you-sure-open-source- FOSS4G 2011. September 12 - 16, 2011. Boulder Colorado, USA.

47. Stasch, C., Autermann, C., Foerster, T., Pebesma, E., 2011. Towards a Spatiotemporal Aggregation Service in the Sensor Web. In: Stan Geertman, Wolfgang Reinhardt, and Fred Toppen, editors. Proceedings of the 14th AGILE International Conference on Geographic Information Science - Advancing Geoinformation Science for a Changing World, Utrecht, 2011. AGILE. ISBN 978-90-816960-1-2.

48. Pebesma, E., R. Bivand, 2011. Handling spatio-temporal data in R. AAG, Space-Time Symposium, Apr 12-15, 2011, Seattle, USA.

49. Pebesma, E., 2011. Grundlagen der raum-zeitlichen Modellierung und Analyse mit R. EDC Entwicklerforum workshop “Time & Space”, 17. - 18.03.2011, Münster.

50. Pebesma, E., 2011. Raum-zeitliche Modellierung und Analyse mit R. EDC Entwicklerforum workshop “Time & Space”, 17. - 18.03.2011, Münster.

51. Dan Cornford, Edzer Pebesma, Stefano Nativi, Matthew Williams, Christoph Stasch, Richard Jones, and Lydia Gerharz, 2011. Realising the Uncertainty Enabled Model Web. Abstract, EGU General Assembly, 2011.

52. Lydia E. Gerharz, Benjamin Proß, Christoph Stasch, and Edzer Pebesma, 2011. A Web-based Uncertainty-enabled Information System for Urban Air Quality Assessment. Abstract, EGU General Assembly, 2011.

53. Boluwade, A, Mateu, J, Pebesma, E and Cabral, P. (2011). Hydrologic Modelling and Uncertainty Analysis of Ungauged Watershed Using Mapwindow-SWAT. 34th IAHR World Congress, in Brisbane, Australia from 26 June to 1 July 2011. Theme/Sub-theme: Theme 1 - 1.1 Floods.

54. Dan Cornford, Stefano Nativi, Edzer Pebesma, 2010. Managing Uncertainty in Data and Models: UncertWeb. AGU Fall meeting, Dec 13-17, 2010, abstract in session IN14: Uncertainty, Error, and Quality of Observational Data.

55. Edzer Pebesma, 2010. Modelling uncertain and fuzzy spatial information. Abstract for the workshop on Multidimensional Geoinformation - advances in spatial information sciences towards modeling geo-processes (multiGI), Karlsruhe Institute for Technology, Oct 14-15 2010.

56. I.T. Stewart, H. Fritze, E. Pebesma, 2010. Is there acceleration in streamflow timing trends across western North American mountains? Global Change and the World's Mountains. Perth, Scotland, UK, 26-30 September 2010.

57. Katharina Henneböhl, Edzer Pebesma, Werner Müller, 2010. Efficient parametric variogram estimation for real-time interpolation of environmental monitoring data. Geostatistics for environmental applications, GeoENV 2010, Sept. 13-15, Gent, Belgium.

58. Lydia E. Gerharz, Edzer J. Pebesma, 2010. Accounting for uncertainties and change of support in spatio-temporal modelling of individual exposure to air pollution. Geostatistics for environmental applications, GeoENV 2010, Sept. 13-15, Gent, Belgium.

59. R. Jones, L. Bastin, D. Cornford, M. Williams, S. Nativi, E. Pebesma, 2009. Handling and communicating uncertainty in chained geospatial Web Services. Spatial Accuracy 2010.

60. Helle, Kristina B., Pebesma, Edzer J., 2009. Conservative Updating of Sampling Designs. Spatial Accuracy 2010.

61. Kristina Helle and Edzer Pebesma, 2010. Optimizing Spatio-Temporal Sampling Designs of Synchronous, Static, or Clustered Measurements. Geophysical Research Abstracts, Vol. 12, EGU2009-12462, EGU General Assembly 2009.

62. Edzer Pebesma, Lydia Gerharz, 2009. Visualizing uncertainty in spatio-temporal data. Spatial Accuracy 2010.

63. Dan Cornford, Richard Jones, Lucy Bastin, Matthew Williams, Edzer Pebesma, and Stefano Nativi, 2010. UncertWeb: chaining web services accounting for uncertainty. Geophysical Research Abstracts Vol. 12, EGU2010-PREVIEW, 2010 EGU General Assembly 2010.

64. Edzer Pebesma, Dan Cornford, and Jon Skøien. 2010. Methods and architectures for automated space-time interpolation. Geophysical Research Abstracts Vol. 12, EGU2010-11207, 2010 EGU General Assembly.

65. H.H. Fritze; I.T. Stewart-Frey; E.J. Pebesma, 2009. Snowmelt Runoff Regime Shifts Across Western North America. AGU Fall meeting, 14-18 december 2009, San Francisco. Abstract H33E-0930.

66. Lydia Gerharz, Edzer Pebesma, 2009. A modeling framework for estimating individual exposure to air pollution. 19th Annual conference of the international society for exposure science, Minneapolis, Nov 1-5, 2009.

67. Alexandre Zenie, Marta Blangiardo, Gavin Shaddick, Bruce Denby, Edzer Pebesma and Clive Sabel, 2009. Uncertainty Characterization and Visualization within the HEIMTSA project. Symposium "Characterizing and Communicating Uncertainties within Assessments of Human Exposures to Chemical Risks" (ID pvz73m) at 2009 SRA Annual Meeting "Risk Analysis: The Evolution of a Science" in Baltimore, Maryland on 6th-9th December 2009

68. Pebesma, E.J., K. Henneböhl, and J. O. Skøien, 2009. Developing automatic interpolation services: experiences from the INTAMAP FP6 project. Geophysical Research Abstracts, Vol. 11, EGU2009-11953, EGU General Assembly 2009.

69. Lydia E. Gerharz, Edzer J. Pebesma, 2009. Usability of interactive and non-interactive visualisation of uncertain geospatial information. Geoinformatik 2009.

70. Katharina Henneböhl, Edzer Pebesma, 2008. Providing R functionality through the OGC Web Processing Service. UseR! The R User Conference 2008, Technische Universität Dortmund, Germany, August 12-14, 2008.

71. Skøien, J.O., E.J. Pebesma, 2008. Real-time mapping in emergency situations - some preliminary results. Geophysical Research Abstracts, Vol. 10, EGU2008-A-09373, 2008 EGU General Assembly 2008.

72. Hiemstra, P., E. Pebesma, G.B.M. Heuvelink, C. Twenhöfel, 2008. Realtime automatic interpolation of ambient gamma dose rates from the Dutch Radioactivity Monitoring Network. In: U. Stöhlker (Ed.), Meeting of experts on "External Dose Rate Monitoring at the Schauinsland Intercalibration Site", Freiburg, Germany, November 28-30, 2007.

73. Skøien, J.O., E. Pebesma, O. Baume, Gerard Heuvelink, 2008. The INTAMAP project first results. In: U. Stöhlker (Ed.), Meeting of experts on "External Dose Rate Monitoring at the Schauinsland Intercalibration Site", Freiburg, Germany, November 28-30, 2007.

74. Skøien, J.O., E.J. Pebesma and G. Blöschl, 2007. Geostatistics for automatic estimation of environmental variables - simple solutions. Geophysical Research Abstracts, Vol. 9, 07879. SRef-ID: 1607-7962/gra/EGU2007-A-07879

75. O. Baume, J.O. Skøien, G.B.M. Heuvelink, E.J. Pebesma, 2007. Geostatistial aproach to data harmonization. Abstract, Presentation at StatGIS 2007, Sept 25-27 2007, Klagenfurt, Austria.

76. De Nijs, A.C.M., E.J. Pebesma, 2007. Spatial uncertainty in land use models. An alternative method to estimate uncertainty in logistic regression models. Proceedings of the 15th European Colloquium on Theoretical and Quantitative Geography. Also available as Chapter 8 in: Ton de Nijs, 2009: Modelling land use change: Improving the prediction of future land use patterns. PhD thesis, Utrecht University; Netherlands Geographical Studies 386; ISBN 978-90-6809-429-9.

77. J.O. Skøien, O. Baume, E.J. Pebesma, G.B.M. Heuvelink, 2007. Identifying and removing heterogeneities between monitoring networks. Abstract, Presentation at StatGIS 2007, Sept 25-27 2007, Klagenfurt, Austria.

78. Pebesma, E.J., Karssenberg, D., De Jong, K. 2006. Dynamic visualisation of spatial and spatio-temporal probability density functions. The Seventh International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences 5-7 July 2006, Lisbon, Portugal.

79. De Nijs, T., Pebesma, E.J., 2006. Uncertainties in logistic regression predictions: an application to land use change modelling. The Seventh International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences 5-7 July 2006, Lisbon, Portugal.

80. R. Bivand, V. Gómez-Rubio, A. López-Quílez, E. Pebesma, P.J. Ribeiro, B. Rowlingson, 2006. R as an open source environment for spatial epidemiology. Spatial Epidemiology Conference, Imperial College, London, UK, 23-25 May 2006.

81. Briggs D.J., R. Beelen, G. Hoek, C. de Hoogh, E. Pebesma, G. Shaddick, D. Vienneau, 2005. Modelling high resolution variations in air pollution at the continental scale: A comparison of GIS-based methods. Program and Abstracts: The Seventeenth Conference of the International Society for Environmental Epidemiology (ISEE): Abstracts. Epidemiology 16 (5): S84-S84, SEP 2005.

82. Shaddick G, Kounali D, Briggs DJ, Beelen R, Hoek G, de Hoogh C, Pebesma E, Vienneau D, 2005. Using Bayesian hierarchical modelling to produce high resolution maps of air pollution in the EU. Program and Abstracts: The Seventeenth Conference of the International Society for Environmental Epidemiology (ISEE): Abstracts. Epidemiology 16 (5): S89-S89, SEP 2005

83. Straatsma, M., H. Middelkoop, E.J. Pebesma, C. Wesseling (2004) Mapping of vegetation characteristics using lidar and spectral remote sensing. In: N. Nouben and A.G. van Os (eds.), NCR-days 2004: Dealing with Floods within Constraints. NCR-publication 24-2004, Netherlands Centre for River Studies, Delft (ISSN 1568-234X).

84. Schuurmans, J.M., Bierkens, M.F.P, Uijlenhoet, R., Torfs, P., Pebesma, E.J. (2004) Estimating high resolution rainfall fields based on meteorological radar and rain gauges for operational water management. European Geosciences Union 1st General Assembly Nice, France, 25–30 April 2004

85. Bierkens, M.F.P; Pebesma, E.J. (2004). Space-time mapping of water table elevation using autoregressive external drift kriging. European Geosciences Union 1st General Assembly Nice, France, 25–30 April 2004

86. Edzer J. Pebesma, Jaap de Gruijter, Gerard B.M. Heuvelink (2004) A Method for Classifying Land Parcels as Receptive or Unreceptive to Nitrate Leaching. The combined TIES 2004 (The Fifteenth Annual Conference of The International Environmetrics Society) and ACCURACY 2004 (The Sixth International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences) meeting, Portland, Maine, USA, June 28 - July 1, 2004.

87. Roger Bivand, Edzer Pebesma and Barry Rowlingson (2004) Generic functions for spatial data. UseR! 2004 , The R User Conference, May 20-22, 2004, Vienna, Austria.

88. Pebesma, E.J., S.M. de Jong (2002) Predicting aboveground biomass using field data and high resolution spectral imaging data. TIES - The International Environmentrics Society - 2002 conference.

89. Pebesma, E.J. and G.B.M. Heuvelink (2001), Sequential simulation of Gaussian random fields with unknown mean function: an application to heavy metal pollution data. Abstract book 4th conference of the Working Group on Pedometrics of the International Union of Soil Science (Ed. M. van Meirvenne). Ghent University, Ghent (pp. 84-84).

90. Heuvelink, G.B.M. and E.J. Pebesma (2001), Is there anything wrong with the ordinary kriging variance? Abstract book 4th conference of the Working Group on Pedometrics of the International Union of Soil Science (Ed. M. van Meirvenne). Ghent University, Ghent (pp. 13-13).

4 Invited papers/presentations

1. Edzer Pebesma, 2017. New developments in r-spatial. Keynote at *Hands-on Global Soil Information Facilities (GSIF)*, 15-19 May 2017, Wageningen, Netherlands (video).

2. Edzer Pebesma, 2017. Incentives and rewards in scientific software communities. Keynote, "Software and Services for Science (S3)", 2nd Conference on Non-Textual Information, May 10-11, 2017, TIB Hannover (slides video).

3. Edzer Pebesma, 2016. Simple Features Now on CRAN. R Consortium blog.

4. Edzer Pebesma, 2016. Scalable Spatiotemporal Geostatistics. Dept of Statistics, University of Innsbrueck, Dec 15, 2016 (pdf).

5. Edzer Pebesma, 2016. Reproducible Research in Practice. Reproducible Research Workshop, UZH, Zürich, Sept 13-14, 2016.

6. Edzer Pebesma, 2016. Breaking down barriers in the scientific use of EO data. EODC Forum 2016, 31st May – 1st June 2016.

7. Edzer Pebesma, 2016. Support of observations and predictions in spatial and temporal statistics: practical aspects and software challenges. DAGStat 2016, Mar 14-18 2016, Computational Statistics and Statistical Software section (pdf).

8. Edzer Pebesma, 2015. Meaningful spatial statistics. Geomatik Seminar, ETH Zürich, Nov 19, 2015.

9. Edzer Pebesma, 2015. On generating spatio-temporal data. Hunter College, CUNY, Geography Seminar Series Oct 5, 2015.

10. Edzer Pebesma, 2015. On generating spatio-temporal data. Wageningen University/Research Center; Sept 30, 2015.

11. Edzer Pebesma, 2014. Analyzing Spatial and Spatio-Temporal Data with R. Bay Area useR Group meeting, Wednesday, December 17, 2014.

12. Edzer Pebesma, Christoph Stasch, Benedikt Gräler, Simon Scheider, 2014. Meaningfully Integrating Big Earth Science Data. AGU fall meeting; invited contribution IN33A-3757 (abstract, e-poster).

13. E. Pebesma, 2014. Visualizing uncertainty in spatial and spatiotemporal field data. Keynote at workshop on *Visually-Supported Reasoning with Uncertainty* held during GIScience 2014, Sept 23, 2014 (slides).

14. E. Pebesma, 2014. Spatial and temporal support of meteorological observations and predictions. Keynote lecture at `http://www.dailymeteo.org`; abstract.

15. E. Pebesma, 2014. Are current spatial databases useful for meaningful analysis? Presentation held for an ad-hoc symposium in Utrecht, May 8, 2014 and as GI Forum/ERCIS lunch seminar in Münster, Apr 22, 2014.

16. E. Pebesma, 2014. Visualizing and communicating uncertainty in the earth and environmental sciences: a review. EGU General Assembly 2014, inivited contribution to session SSS11.1/ESSI3.6, *Communication of uncertainty about information in earth sciences.*

17. Edzer Pebesma, 29 Jan 2013. *Where do spatial statistics and geoinformatics meet?* Geodätischen Kolloquium der Leibniz Universität Hannover. (slides)

18. Edzer Pebesma, 2012. *The uncertainty-enabled model web: concepts and tools.* Workshop on Uncertainty Quantification for Climate and Environmental Models, UCL, 29 June 2012

19. Edzer Pebesma, 2011. *Spatial data quality and error propagation in spatio-temporal modelling in practice.* Keynote at 7th International Symposium on Spatial Data Quality (ISSDQ 2011): Raising awareness of Spatial Data Quality (Coimbra, PT, 12-14 October 2011).

20. Edzer Pebesma, 2010. *Modelling spatio-temporal data with R.* Invited lecture at GeoInfo 2010, November 28 to December 1, 2010, Campos do Jordão and on December 2, 2010 at INPE, São José dos Campos, São Paulo, Brazil.

21. Edzer Pebesma, 2010. *Modelling uncertain and fuzzy spatial information.* Abstract for the workshop on Multidimensional Geoinformation - advances in spatial information sciences towards modeling geo-processes (multiGI), Karlsruhe Institute for Technology, Oct 14-15 2010.

22. Edzer Pebesma, 2010. Open geostatistics for global change. Inaugural lecture, faculty of geosciences, University of Muenster, June 25, 2010.

23. Invited talk: *Interoperability and automated mapping: the past, the INTAMAP project, and the future.* Agaduc workshop, Dec 4, 2008.

5 Books, reports, book chapters, etc.

1. G.B.M. Heuvelink, E. Pebesma, B. Gräler, 2015. Space-Time Geostatistics. In: S. Shekhar, H. Xiong and X. Zhou: Encyclopedia of GIS. Springer International Publishing. pages 1–7. 10.1007/978-3-319-23519-6_1647-1

2. Matt Duckham, Edzer Pebesma, Kathleen Stewart, Andrew U. Frank, 2014. Geographic Information Science. 8th International Conference, GIScience 2014, Vienna, Austria, September 24-26, 2014, Proceedings. Lecture Notes in Computer Science Volume 8728.

3. Kathleen Stewart, Edzer Pebesma, Gerhard Navratil, Paolo Fogliaroni, Matt Duckham (eds.) Extended Abstract Proceedings of the GIScience 2014. GEO.INFO 40, Department of Geodesy and Geoinformation, Vienna University of Technology.

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6 Standard documents

1. Uncertainty Markup Language (UncertML). M. Williams, D. Cornford, L. Bastin and E. Pebesma (eds.) OGC Discussion paper 08-122r2 (pdf). See also `http://www.uncertml.org/`.

7 Published reviews

1. Pebesma, E. Package Review of osmdata. Software review for ROpenSci.

2. Pebesma, E. "Extending R", by John M. Chambers. Book review, Journal of Agricultural, Biological, and Environmental Statistics.

3. Pebesma, E. Interactive discussion: Review of: Ordinary kriging as a tool to estimate historical daily streamflow records; HESSD.

4. Pebesma, E. Interactive comment on "An open and extensible framework for spatially explicit land use change modelling in R: the lulccR package (0.1.0)" by S. Moulds et al.

5. Pebesma, E. Interactive comment on "Topological and canonical kriging for design-flood prediction in ungauged catchments: an improvement over a traditional regional regression approach?" by S. A. Archfield et al.

6. Gräler, B., E. Pebesma, Review of "Interpolation of groundwater quality parameters with some values below the detection limit", by A. Bárdossy.

7. Pebesma, E., 2010. Is PSBI still a geostatistical interpolation method? Interactive comment on "Geostatistical regionalization of low-flow indices: PSBI and Top-Kriging" by S. Castiglioni et al.

8. Pebesma, E.J., 2004. Review of: *Image analysis, Random Fields and Markov Chain Monte Carlo Methods, a mathematical introduction*, by G. Winkler. Kwantitatieve methoden 72.,

9. Pebesma, E.J., 2003. Review of: *The elements of statistical learning*, by T. Hastie, R. Tibshirani, and J. Friedman. The International Environmetrics Society Newsletter, Volume 9, No 1, p. 13.

10. Pebesma, E.J., 1999. Review of: *Multivariate Geostatistics; An Introduction with Applications*, by H. Wackernagel. Earth-Science Reviews 48, pp. 132-133.

8 Under review/accepted for publication

1. Matthias Schramm, Wolfgang Wagner and Edzer Pebesma, submitted. openEO - An open source Interface between EO Data Infrastructures and Front-End Applications.

2. Christian Knoth, Sofian Slimani, Marius Appel, Edzer Pebesma, submitted. Combining automatic and manual image analysis in a web-mapping application for collaborative conflict damage assessment

3. Marius Appel, Florian Lahn, Wouter Buytaert, Edzer Pebesma, submitted. Open and scalable analytics of large Earth observation datasets: from scenes to multidimensional arrays using SciDB and GDAL.

4. Victor Maus, Gilberto Câmara, Marius Appel, Edzer Pebesma, accepted. dtwSat: Time-Weighted Dynamic Time Warping for Satellite Image Time Series Analysis in R. Journal of Statistical Software.

9 Editorial boards/guest editorials

1. Co-Editor-in-Chief, Journal of Statistical Software, Feb 2015 – present.

2. Co-Editor-in-Chief, Computers and Geosciences, May 2014 – present.

3. Associate editor, Spatial Statistics, 2011 – present.

4. Associate editor, Journal of Statistical Software, Jun 2013 – Feb 2015.

5. Associate editor, Computers and Geosciences, Apr 2013 – May 2014.

6. Editorial board member, Environments, 2013 – 2014.

7. Editorial board, Catena, 2006 – 2009

8. Special Section editor, with Thomas Romary on a Spatial Statistics special issue on GeoENV 2014.

9. T. Hengl, E. Pebesma R. J. Hijmans, 2015. Spatial and spatio-temporal modeling of meteorological and climatic variables using Open Source software. Spatial Statistics, in press.

10. Special Issue editor, with Roger Bivand and Paulo Justiano Ribeiro Jr, for a Journal of Statistical Software special issue on Spatial Statistics

11. Gerard Heuvelink, Edzer Pebesma, Alfred Stein, 2013. Spatial statistics for mapping the environment. International Journal of Applied Earth Observation and Geoinformation Volume 22, Pages 1–2.

12. A. Stein, E. Pebesma and G. Heuvelink, 2012. Editorial. Spatial Statistics Vol. 1, pages 1-2.

13. Alfred Stein, Edzer Pebesma and Gerard Heuvelink, 2011. Editorial. Procedia Environmental Sciences, Volume 7, Pages 1-400. Spatial Statistics 2011: Mapping Global Change

14. Dubois, G. D. Cornford, D. Hristopulos, E. Pebesma, and J. Pilz, 2010. Introduction to this special issue on Geoinformatics for Environmental Surveillance. Computers & Geosciences 37, 277-279.

10 Tutorials/workshops etc.

1. Edzer Pebesma, 2017. R / Python and Big Data; openEO. EDC Workshop "Big Data Analytics & GIS" September 21-22, 2017. Münster. slides.

2. Edzer Pebesma, 2017. Spatial data in R: new directions. Workshop, UseR! 2017, Jul 4-7, Brussels, Belgium.

3. Daniel Nüst, Edzer Pebesma, Vicky Steeves, 2017. Reproducible computational research in the publication cycle . Short course, EGU 2017, SC81.

4. Handling and analyzing spatial, spatiotemporal and movement data. UseR!, The R User Conference 2016, Stanford, Jun 27-30, 2016.

5. Chue Hong, Neil; Hammitzsch, Martin; Hufton, Andrew; Neteler, Markus; Pebesma, Edzer; van Edig, Xenia; Wenig, Philip, 2015. Open Science goes Geo – Part II: Scientific Software. Short course, held at the European Geosciences Union General Assembly 2015. The talks are available at YouTube, slides at Zenodo.

6. Various geostat-course.org video's: 2012 2014

7. Analysing spatio-temporal data with R. Agile, Leuven, May 14, 2013.

8. Software for spatio-temporal analysis. Session on Spatial Statistics 2013.

9. Analysing spatio-temporal data with R. Workshop at Spatial Statistics, Jun 4, 2013.

10. Handling and Analyzing Spatio-temporal Data in R. Tutorial at UseR! 2011, The R User Conference 2011, August 16-18 2011 University of Warwick, Coventry, UK

11. Spatiotemporal Data Handling in R. Tutorial at: GeoINFO 2010, XI Brazilian Symposium on GeoInformatics. November 29-Dec 1, 2010 at Campos do Jordao, Brazil.

12. Handling and analyzing spatio-temporal data in R, Workshop, 21-22 Mar 2011 Workshop at institute for geoinformatics, University of Muenster, Germany.

13. GI science for improving risk and resource management in the Brazilian Amazon. Gilberto Câmara, Edzer Pebesma and Giovana Mira de Espindola. Tuturial at Geoinformatik 2011, 15-17 June 2011, Münster, Germany.

14. GI science for environmental change: use cases the Brazilian Amazon. Giovana Mira de Espindola, Gilberto Câmara and Edzer Pebesma. Workshop at Geoinformatik 2011, 15-17 June 2011,Münster, Germany.

11 Published software tutorials (R package vignettes or task views)

1. Pebesma, E., R. Bivand, 2005. S Classes and Methods for Spatial Data: the sp Package. Vignette in R package sp

2. Pebesma, E., 2011. sp: overlay and aggregation. Vignette in R package sp

3. Pebesma, E., 2013. Customising spatial data classes and methods, in R package sp

4. Pebesma, E., 2011. `spacetime`: Spatio-Temporal Data in R. Vignette in R package spacetime

5. Pebesma, E., 2011. Spatio-temporal overlay and aggregation. Vignette in R package spacetime

6. Pebesma, E., 2011. Spatio-temporal objects to proxy a PostgreSQL table. Vignette in R package spacetime

7. Pebesma, E., 2011. The meuse data set: a brief tutorial for the gstat R package. Vignette in R package gstat

8. Pebesma, E., 2011. The pairwise relative semivariogram. Vignette in R package gstat

9. Pebesma, E., 2011. Spatio-temporal geostatistics using gstat. Vignette in R package gstat

10. Pebesma, E., 2013. CRAN Task View: Handling and Analyzing Spatio-Temporal Data

11. Pebesma, E, 2016. Measurement Units of Physical Quantities for R Vectors.