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Publications

See also [AMS>Mathscinet>Potthast, R](#) or [R Potthast on Google Scholar](#) or [ResearcherID: F-2265-2013](#), compare <http://www.researcherid.com/rid/F-2265-2013> or [Orcid: http://orcid.org/0000-0001-6794-2500](http://orcid.org/0000-0001-6794-2500), [Roland on Mendeley](#).



Books

- Gen Nakamura and Roland Potthast: [Inverse Modeling - An introduction to the theory and methods of inverse problems and data assimilation](#), IOP Ebook Series 2015, 550 pages, 200 images, 170 codes. [Book on Amazon](#)
- Coombes, S., beim Graben, P., Potthast, R., Wright, J. (Eds.): [Neural Fields - Theory and Applications](#). Springer 2014 ... **more than 20600 downloads!**
- Potthast, R.: [Point-sources and Multipoles in Inverse Scattering](#), Chapman & Hall, London 2001.

Correspondence Courses

Among various lecture notes for basically all my lectures, I have written more elaborate correspondence courses:

- [Managers Introduction to Information Technology](#), Correspondence Course for the [Henley Management College](#), Henley-On-Thames, Oxfordshire, UK (2000).
- [Mathematical Foundations of Public Policy](#), Correspondence Course, University of Erfurt 2002.

Preprints and Current Work

- Roland Potthast, Anne Walter and Andreas Rhodin: [A Localised Adaptive Particle Filter within an Operational NWP Framework](#). Submitted.
- Qazi Muhammad Zaigham Zia and Roland W.E. Potthast: [A Contraction Scheme for Shape Reconstruction Problems in Inverse Fluid Dynamics](#), Submitted.
- Michael Bender, Andreas Rhodin, Christoph Schraff, Klaus Stephan, and Roland Potthast: [A Slant Total Delay Observation Operator for ICON and COSMO](#), Submitted.
- Frederik Kurzrock, Sylvain Cros, Fabrice Chane-Ming, Jason A. Otkin, Laurent Linguet, Axel Hutt, Gilles Lajoie, Roland Potthast: [Cloudy Data Assimilation: A Review of the Use of Cloud-Affected Observations from Geostationary Satellites in Regional-Scale Models](#), under revision

Research Notes: [research_notes](#) ...

Papers on hold (most is now in the book Inverse Modeling): [other_work_ongoing](#) ...

More Generic Information on Publishing and Metrics

Average citation rates up to 2010 in Mathematics for articles written between 2000 and 2010 ¹⁾ - meaning that an article written in 2000 has 6.76 citations on average until 2010:



2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
6.76	6.05	5.99	5.39	4.80	4.19	3.36	2.51	1.67	0.86	0.14

leading to an average citation per article of 3.48 in a decade.

Author Citations for Roland W. E. Potthast
 Roland W. E. Potthast is cited 1001 times by 486 authors
 in the MR Citation Database

Most Cited Publications	
Citations	Publication
126	MR1853728 (2002j:35313) Potthast, Roland Point sources and multipoles in inverse scattering theory. <i>Chapman & Hall/CRC Research Notes in Mathematics</i> , 427. Chapman & Hall/CRC, Boca Raton, FL, 2001. xii+261 pp. ISBN: 1-58488-252-2 (Reviewer: Vladislav G. Dubrovsky) 35R30 (35J15 35P25 47G10 76Q05 78A46)
...	MR1483999 (99b:35209) Colton, David; Piana, Michele; Potthast, Roland A simple method using Morozov's

For the full research articles below in 07/2017 around 1218 citations are recorded by Thompson, which is an average of 15.42 citations per article. The map on the right indicates the location of institutions citing the

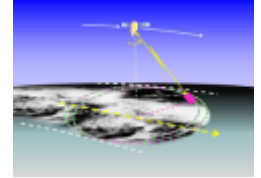
articles. The citation list of the MathSciNet database is indicated below.

Today, often citation metrics play an important role in judging scientists. But we need to understand that citation counts rather reflect the activity in some layer of science or some particular field rather than the quality of the science of a researcher.

Research Journal Papers

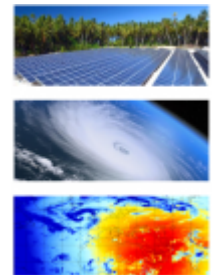
2018

- Jehan Alswaihli, Roland Potthast, Axel Hutt, Douglas Saddy, and Ingo Bojak. [Kernel reconstruction for delayed neural field equations](#). The Journal of Mathematical Neuroscience (JMN), accepted.



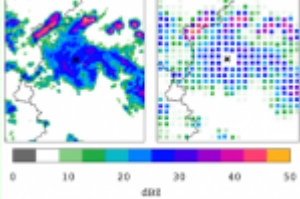
- Anthony Illingworth, Ph.D.; Alessandro Battaglia; John Bradford; Mary Forsythe; Paul Joe; Pavlos Kollias; Katie Lean; Maurizio Lori; Jean-Francois Mahfouf; Stella Mello; Rolv Midthassel; Yvonne Munro; John Nicol; Roland Potthast; Michael Rennie; Thorwald Stein; Simone Tanelli; Frederic Tridon; Christopher Walden; Mengistu Wolde, [WIVERN: A new satellite concept to provide global in-cloud winds, precipitation and cloud properties](#). BAMS. Accepted.

2017



- In-Hyuk Kwon, Ph.D.; Stephen English; William Bell; Roland Potthast; Andrew Collard; Benjamin Ruston: [Assessment of Progress and Status of Data Assimilation in NWP](#), BAMS. Accepted.
- Jason A Otkin; Roland Potthast; Amos Lawless: [Nonlinear Bias Correction for Satellite Data Assimilation Using Taylor Series Polynomials](#) MWR-D-17-0171, Monthly Weather Review, accepted. [PDF](#)
- Armin Geisinger, Andreas Behrendt, Volker Wulfmeyer, Jens Strohbach, Jochen Förstner, and Roland Potthast: [Development and Application of a Backscatter Lidar Forward Operator for Quantitative Validation of Aerosol Dispersion Models and Future Data Assimilation](#), Atmos. Meas. Tech. Discuss., <https://doi.org/10.5194/amt-2017-142>, 2017, Revised manuscript accepted for AMT. Previously discussion paper: <http://www.atmos-chem-phys-discuss.net/acp-2016-609/>
- Aamir Nadeem, Roland Potthast and Andreas Rhodin: [On Sequential Multiscale Inversion and Data Assimilation](#), Journal of Computational and Applied Mathematics (CAM), accepted. [PDF](#)
- T. Janjic, N. Bormann, M. Bocquet, J. A. Carton, S. N. Losa, S. L. Dance, N. K. Nichols, J. A. Waller, P. Weston, R. Potthast, S. E. Cohn: [On the representation error](#), QJRMS accepted. [Online PDF](#)

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- Christoph Schraff, Hendrik Reich, Andreas Rhodin, Annika Schomburg, Klaus Stephan, Africa Perianez and Roland Potthast: [Kilometer Scale Ensemble Data Assimilation for the COSMO Model \(KENDA\)](#), QJ RMS, Volume 142, Issue 696, pages 1453–1472, April 2016 Part A. [Abstract Online](#)
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- T. Bick, C. Simmer, S. Trömel, K. Wapler, H.-J. Hendricks Franssen, K. Stephan, U. Blahak, C. Schraff, H. Reich, Y. Zeng, R. Potthast: [Assimilation of 3D Radar Reflectivities with an Ensemble Kalman Filter on the Convective Scale](#). QJ RMS, Volume 142, Issue 696, pages 1490–1504, April 2016 Part A. [PDF Online](#)
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 - Aamir Nadeem and Roland Potthast: [Transformed and Generalized Localization for Ensemble Methods in Data Assimilation](#), Mathematical Methods in the Applied Sciences, Volume 39, Issue 4, pages 619–634, March 2016. [Web](#)

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- Gen Nakamura and Roland Potthast: [Inverse Modeling - An introduction to the theory and methods of inverse problems and data assimilation](#), IOP Ebook Series 2015, 550 pages, 200 images, 170 codes. [Web](#)
- Annika Schomburg, Christoph Schraff and Roland Potthast: [A concept for the assimilation of cloud information in a Local Ensemble Transform Kalman Filter at the convective scale](#), QJ RMS Volume 141, Issue 688, pages 893–908, April 2015 Part A. [Web](#)

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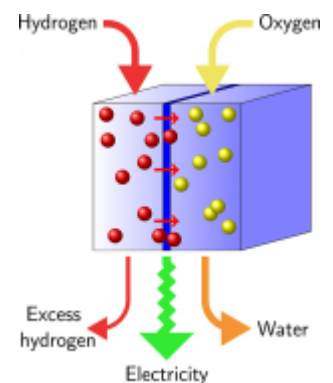


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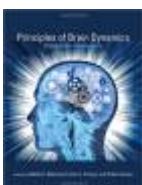


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