

List of Publications*

July 9, 2017

Axel G. Rossberg

Monographs

1. ROSSBERG, A. G. (2013). *Food Webs and Biodiversity: Foundations, Models, Data*. Wiley. ISBN 9-780470973-55-4, winner of PROSE award 2013 in Biological Sciences category.

Refereed Journal Articles

2. ROSSBERG, A. G., UUSITALO, L., BERG, T., ZAIKO, A., CHENUIL, A., UYARRA, M. C., BORJA, A., AND LYNAM, C. P. (2017). Quantitative criteria for choosing targets and indicators for sustainable use of ecosystems. *Ecological Indicators*, 72, 215–224.
3. SCHIPPER, A. M., BELMAKER, J., DE MIRANDA, M. D., NAVARRO, L. M., BÖHNING-GAESE, K., COSTELLO, M. J., DORNELAS, M., FOPEN, R., HORTAL, J., HUIJBREGTS, M. A. J., MARTÍN-LÓPEZ, B., PETTORELLI, N., QUEIROZ, C., ROSSBERG, A. G., SANTINI, L., SCHIFFERS, K., STEINMANN, Z. J. N., VISCONTI, P., RONDININI, C., AND PEREIRA, H. M. (2016). Contrasting changes in the abundance and diversity of North American bird assemblages from 1971 to 2010. *Glob Change Biol*, pp. n/a–n/a.
4. SANTINI, L., BELMAKER, J., COSTELLO, M. J., PEREIRA, H. M., ROSSBERG, A. G., SCHIPPER, A. M., CEAUȘU, S., DORNELAS, M., HILBERS, J. P., HORTAL, J., HUIJBREGTS, M. A. J., NAVARRO, L. M., SCHIFFERS, K. H., VISCONTI, P., AND RONDININI, C. (2016). Assessing the suitability of diversity metrics to detect biodiversity change. *Biological Conservation*.
5. LYNAM, C. P., UUSITALO, L., PATRÍCIO, J., PIRODDI, C., QUEIRÓS, A. M., TEIXEIRA, H., ROSSBERG, A. G., SAGARMINAGA, Y., HYDER, K., NIQUIL, N., MÖLLMANN, C., WILSON, C., CHUST, G., GALPARSORO, I., FORSTER, R., VERÍSSIMO, H., TEDESCO, L., REVILLA, M., AND NEVILLE, S. (2016). Uses of Innovative Modeling Tools within the Implementation of the Marine Strategy Framework Directive. *Front. Mar. Sci*, p. 182.
6. HEISKANEN, A.-S., BERG, T., UUSITALO, L., TEIXEIRA, H., BRUHN, A., KRAUSE-JENSEN, D., LYNAM, C. P., ROSSBERG, A. G., KORPINEN, S., UYARRA, M. C., AND BORJA, A. (2016). Biodiversity in marine ecosys-

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- tems—European developments toward robust assessments. *Front. Mar. Sci.*, p. 184.
7. FARCAS, A. AND ROSSBERG, A. G. (2016). Maximum sustainable yield from interacting fish stocks in an uncertain world: Two policy choices and underlying trade-offs. *ICES J. Mar. Sci.*, 73(10), 2499–2508.
 8. PIRODDI, C., TEIXEIRA, H., LYNAM, C. P., SMITH, C., ALVAREZ, M. C., MAZIK, K., ANDONEGI, E., CHURILOVA, T., TEDESCO, L., CHIFFLET, M., CHUST, G., GALPARSORO, I., GARCIA, A. C., KÄMÄRI, M., KRYVENKO, O., LASSALLE, G., NEVILLE, S., NIQUIL, N., PAPADOPOULOU, N., ROSSBERG, A. G., SUSLIN, V., AND UYARRA, M. C. (2015). Using ecological models to assess ecosystem status in support of the European Marine Strategy Framework Directive. *Ecological Indicators*, 58, 175–191.
 9. JAMES, A., PLANK, M. J., ROSSBERG, A. G., BEECHAM, J., EMMERSON, M., AND PITCHFORD, J. W. (2015). Constructing random matrices to represent real ecosystems. *The American Naturalist*, 185(5), 680–692.
 10. HYDER, K., ROSSBERG, A. G., ALLEN, J. I., AUSTEN, M. C., BARCIELA, R. M., BANNISTER, H. J., BLACKWELL, P. G., BLANCHARD, J. L., BURROWS, M. T., DEFRIEZ, E., DORRINGTON, T., EDWARDS, K. P., GARCIA-CARRERAS, B., HEATH, M. R., HEMBURY, D. J., HEYMANS, J. J., HOLT, J., HOULE, J. E., JENNINGS, S., MACKINSON, S., MALCOLM, S. J., MCPIKE, R., MEE, L., MILLS, D. K., MONTGOMERY, C., PEARSON, D., PINNEGAR, J. K., POLLICINO, M., POPOVA, E. E., RAE, L., ROGERS, S. I., SPEIRS, D., SPENCE, M. A., THORPE, R., TURNER, R. K., VAN DER MOLEN, J., YOOL, A., AND PATERSON, D. M. (2015). Making modelling count - increasing the contribution of shelf-seas community and ecosystem models to policy development and management. *Marine Policy*, 61, 291–302.
 11. FUNG, T., FARNSWORTH, K. D., REID, D. G., AND ROSSBERG, A. G. (2015). Impact of biodiversity loss on production in complex marine food webs mitigated by prey-release. *Nature Communications*, 6, 6657.
 12. BORRELLI, J. J., ALLESINA, S., AMARASEKARE, P., ARDITI, R., CHASE, I., DAMUTH, J., HOLT, R. D., LOGOFET, D. O., NOVAK, M., ROHR, R. P., ROSSBERG, A. G., SPENCER, M., TRAN, J. K., AND GINZBURG, L. R. (2015). Selection on stability across ecological scales. *Trends in Ecology & Evolution*, 30(7), 417–425.
 13. ROSSBERG, A. G., ROGERS, T., AND MCKANE, A. J. (2014). Current noise-removal methods can create false signals in ecogenomic data. *Proceedings of the Royal Society B: Biological Sciences*, 281(1783), 20140191.
 14. NAGELKERKE, L. A. J. AND ROSSBERG, A. G. (2014). Trophic niche-space imaging, using resource and consumer traits. *Theoretical Ecology*, 7(4), 423–

434. Doi:10.1007/s12080-014-0229-5.
15. VAN LEEUWEN, E., BRÄNNSTRÖM, Å., JANSEN, V. A. A., DIECKMANN, U., AND ROSSBERG, A. G. (2013). A generalized functional response for predators that switch between multiple prey species. *Journal of Theoretical Biology*, 328, 89–98. doi:10.1016/j.jtbi.2013.02.003.
 16. SHEPHARD, S., FUNG, T., ROSSBERG, A. G., FARNSWORTH, K. D., REID, D. G., GREENSTREET, S. P. R., AND WARNES, S. (2013). Modelling recovery of Celtic Sea demersal fish community size-structure. *Fisheries Research*, 140, 91–95.
 17. ROSSBERG, A. G., ROGERS, T., AND MCKANE, A. J. (2013). Are there species smaller than 1 mm? *Proceedings of the Royal Society B*, 280, 20131248.
 18. ROSSBERG, A. G., HOULE, J. E., AND HYDER, K. (2013). Stock-recruitment relations controlled by feeding interactions alone. *Canadian Journal of Fisheries and Aquatic Sciences*, 70(10), 1447–1455.
 19. ROMBOUTS, I., BEAUGRAND, G., FIZZALA, X., GAILL, F., GREENSTREET, S. P. R., LAMARE, S., LE LOC'H, F., MCQUATTERS-GOLLOP, A., MIALET, B., NIQUIL, N., RENAUD, F., ROSSBERG, A. G., AND FÉRAL, J. P. (2013). Food web indicators under the marine strategy framework directive: From complexity to simplicity? *Ecological Indicators*, 29, 246–254.
 20. FUNG, T., FARNSWORTH, K. D., SHEPHARD, S., REID, D. G., AND ROSSBERG, A. G. (2013). Why the size structure of marine communities can require decades to recover from fishing. *Marine Ecology Progress Series*, 484, 155–171. doi:10.3354/meps10305.
 21. SHEPHARD, S., FUNG, T., HOULE, J. E., FARNSWORTH, K. D., REID, D. G., AND ROSSBERG, A. G. (2012). Size-selective fishing drives species composition in the Celtic Sea. *ICES Journal of Marine Science*, 69(2), 223–234.
 22. ROSSBERG, A. G. (2012). A complete analytic theory for structure and dynamics of populations and communities spanning wide ranges in body size. *Advances in Ecological Research*, 46, 429–522.
 23. ROGERS, T., MCKANE, A. J., AND ROSSBERG, A. G. (2012). Spontaneous genetic clustering in populations of competing organisms. *Phys. Biol.*, 9, 066002. Chosen as one of Physical Biology's highlights of 2012.
 24. ROGERS, T., MCKANE, A. J., AND ROSSBERG, A. G. (2012). Demographic noise can lead to the spontaneous formation of species. *Europhysics Letters*, 97(4), 40008. "Editor's Choice".
 25. NAISBIT, R. E., ROHR, R. P., ROSSBERG, A. G., KEHRLI, P., AND

- BERSIER, L.-F. (2012). Phylogeny versus body size as determinants of food-web structure. *Proceedings of the Royal Society B*, 279(1741), 3291–3297.
26. MULDER, C., BOIT, A., MORI, S., VONK, J. A., DYER, S. D., FAGGIANO, L., GEISEN, S., GONZÁLEZ, A. L., KASPARI, M., LAVOREL, S., MARQUET, P. A., ROSSBERG, A. G., STERNER, R. W., VOIGT, W., AND WALL, D. H. (2012). Distributional (in)congruence of biodiversity–ecosystem functioning. *Advances in Ecological Research*, 46, 1–88.
 27. HOULE, J. E., FARNSWORTH, K. D., ROSSBERG, A. G., AND REID, D. G. (2012). Assessing the sensitivity and specificity of fish community indicators to management action. *Canadian Journal of Fisheries and Aquatic Sciences*, 69(6), 1065–1079.
 28. GREENSTREET, S. P. R., ROSSBERG, A. G., FOX, C. J., LE QUESNE, W. J. F., BLASDALE, T., BOULCOTT, P., MITCHELL, I., MILLAR, C., AND MOFFAT, C. F. (2012). Demersal fish biodiversity: species-level indicators and trends-based targets for the Marine Strategy Framework Directive. *ICES Journal of Marine Science*, 69(10), 1789–1801.
 29. FUNG, T., FARNSWORTH, K. D., REID, D. G., AND ROSSBERG, A. G. (2012). Recent data suggest no further recovery in North Sea Large Fish Indicator. *ICES Journal of Marine Science*, 69(2), 235–239.
 30. FINK, P., REICHWALDT, E. S., HARROD, C., AND ROSSBERG, A. G. (2012). Determining trophic niche width: An experimental test of the stable isotope approach. *Oikos*, 121(12), 1985–1994. Doi:10.1111/j.1600-0706.2012.20185.x.
 31. ROSSBERG, A. G., FARNSWORTH, K. D., SATOH, K., AND PINNEGAR, J. K. (2011). Universal power-law diet partitioning by marine fish and squid with surprising stability-diversity implications. *Proceeding of the Royal Society B*, 278(1712), 1617–1625.
 32. ROSSBERG, A. G. AND FARNSWORTH, K. D. (2011). Simplification of structured population dynamics in complex ecological communities. *Theoretical Ecology*, 4(4), 449–465.
 33. BRÄNNSTRÖM, Å., CARLSSON, L., AND ROSSBERG, A. G. (2011). Rigorous conditions for food-web intervality in high-dimensional trophic niche spaces. *Journal of Mathematical Biology*, 63(3), 575–592.
 34. ROSSBERG, A. G., BRÄNNSTRÖM, Å., AND DIECKMANN, U. (2010). How trophic interaction strength depends on traits — A conceptual framework for representing multidimensional trophic niche spaces. *Theoretical Ecology*, 3(1), 13–24.
 35. ROSSBERG, A. G., BRÄNNSTRÖM, Å., AND DIECKMANN, U. (2010). Food-web structure in low- and high-dimensional trophic niche spaces. *Journal of*

the Royal Society Interface, 7, 1735–1743.

36. MULDER, C., DEN HOLLANDER, H. A., VONK, J. A., ROSSBERG, A. G., JAGERS OP AKKERHUIS, G. A. J. M., AND YEATES, G. W. (2009). Soil resource supply influences faunal size-specific distributions in natural food webs. *Naturwissenschaften*, 96(7), 813–826.
37. SERIZAWA, H., AMEMIYA, T., ROSSBERG, A. G., AND ITOH, K. (2008). Computer simulations of seasonal outbreak and diurnal vertical migration of cyanobacteria. *Limnology*, 9, 185–194.
38. SERIZAWA, H., AMEMIYA, T., ENOMOTO, T., ROSSBERG, A. G., AND ITOH, K. (2008). Mathematical modeling of colony formation in algal blooms: phenotypic plasticity in cyanobacteria. *Ecological Research*, 23, 841–850.
39. ROSSBERG, A. G., ISHII, R., AMEMIYA, T., AND ITOH, K. (2008). The top-down mechanism for body-mass-abundance scaling. *Ecology*, 89(2), 567–580.
40. ROSSBERG, A. G. (2008). Part-whole relations between food webs and the validity of local food-web descriptions. *Ecological Complexity*, 5(2), 121–131.
41. ROSSBERG, A. G. (2008). Laplace transforms of probability distributions and their inversions are easy on logarithmic scales. *J. Appl. Prob.*, 45(2), 531–541.
42. KUMAR, P., HIREMATH, U. S., YELAMAGGAD, C. V., ROSSBERG, A. G., AND KRISHNAMURTHY, K. S. (2008). Electroconvection in a homeotropic bent-rod nematic liquid crystal beyond the dielectric inversion frequency. *J. Phys. Chem. B*, 112(32), 9753–9760.
43. KUMAR, P., HIREMATH, U. S., YELAMAGGAD, C. V., ROSSBERG, A. G., AND KRISHNAMURTHY, K. S. (2008). Drifting periodic structures in a degenerate-planar bent-rod nematic liquid crystal beyond the dielectric inversion frequency. *J. Phys. Chem. B*, 112(31), 9270–9274.
44. AMEMIYA, T., ENOMOTO, T., ROSSBERG, A. G., YAMAMOTO, T., INAMORI, Y., AND ITOH, K. (2007). Stability and dynamical behavior in a lake-model and implications for regime shifts in real lakes ecological modelling. *Ecological Modelling*, 206, 54–62.
45. TATSUMI, S., SANO, M., AND ROSSBERG, A. G. (2006). Observation of stable phase jump lines in convection of a twisted nematic. *Physical Review E*, 73, 011704.
46. ROSSBERG, A. G., YANAGI, K., AMEMIYA, T., AND ITOH, K. (2006). Estimating trophic link density from quantitative but incomplete diet data. *Journal of Theoretical Biology*, 243(2), 261–272.
47. ROSSBERG, A. G., MATSUDA, H., AMEMIYA, T., AND ITOH, K. (2006).

- Some properties of the speciation model for food-web structure — Mechanisms for degree distributions and intervality. *Journal of Theoretical Biology*, 238(2), 401–415.
48. ROSSBERG, A. G., MATSUDA, H., AMEMIYA, T., AND ITOH, K. (2006). Food webs: Experts consuming families of experts. *Journal of Theoretical Biology*, 241(3), 552–563. Corrigendum: <http://dx.doi.org/10.1016/j.jtbi.2009.01.006> doi:10.1016/j.jtbi.2009.01.006.
 49. YIMIT, A., ROSSBERG, A. G., AMEMIYA, T., AND ITOH, K. (2005). Thin film composite optical waveguides for sensor applications: a review. *Talanta*, 65(5), 1102–1109.
 50. ROSSBERG, A. G., MATSUDA, H., KOIKE, F., AMEMIYA, T., MAKINO, M., MORINO, M., KUBO, T., SHIMOIDE, S., NAKAI, S., KATOH, M., SHIGEOKA, T., AND URANO, K. (2005). A guideline for ecological risk management procedures. *Landscape and Ecological Engineering*, 1(2), 221–228.
 51. ROSSBERG, A. G., MATSUDA, H., AMEMIYA, T., AND ITOH, K. (2005). An explanatory model for food-web structure and evolution. *Ecological Complexity*, 2, 312–321.
 52. AMEMIYA, T., ENOMOTO, T., ROSSBERG, A. G., TAKAMURA, N., AND ITOH, K. (2005). Lake restoration in terms of ecological resilience: a numerical study of biomanipulations under bistable conditions. *Ecology and Society*, 10(2), 3. [online] URL:<http://www.ecologyandsociety.org/vol10/iss2/art3/>.
 53. ROSSBERG, A. G., RIEGLER, P., BUHL, F., HERWIG, J., AND TIMMER, J. (2004). Detection of improper installation from the sensor signal of vortex flowmeters. *Flow Meas. Instrum.*, 15, 29–35.
 54. ROSSBERG, A. G., BARTHOLOMÉ, K., VOSS, H. U., AND TIMMER, J. (2004). Phase synchronization from noisy univariate signals. *Physical Review Letters*, 93(15), 154103.
 55. ROSSBERG, A. G., BARTHOLOMÉ, K., AND TIMMER, J. (2004). Data driven optimal filtering for phase and frequency of noisy oscillations: application to vortex flowmetering. *Physical Review E*, 69, 016216.
 56. ROSSBERG, A. G. (2004). On the limits of spectral methods for frequency estimation. *Int. J. Bif. Chaos*, 14(6), 2115–2123.
 57. ROSSBERG, A. G. (2004). A frequency measure robust to linear filtering. *Prog. Theor. Phys.*, 112(6), 907–919.
 58. ÉBER, N., NÉMETH, S., ROSSBERG, A. G., KRAMER, L., AND BUKA, Á. (2002). Magnetic field effect on the thresholds of a sequence of transitions in the electroconvection of a homeotropic nematic liquid crystal. *Physical Review*

E, 66, 036213.

59. ÉBER, N., ROSSBERG, A., BUKA, A., AND KRAMER, L. (2001). New scenarios in the electroconvection of a homeotropic nematic liquid crystal. *Mol. Cryst. Liq. Cryst. A*, 351, 161–168.
60. ROSSBERG, A. G., ÉBER, N., BUKA, Á., AND KRAMER, L. (2000). Abnormal rolls and regular arrays of disclinations in homeotropic electroconvection. *Physical Review E*, 61(1), R25–R28.
61. ROSSBERG, A. G. (2000). Twist localizes three-dimensional patterns. *Physical Review E*, 62(4), 4682–4687.
62. ROSSBERG, A. G. (2000). Three-dimensional pattern formation, multiple homogeneous soft modes, and nonlinear dielectric electroconvection. *Physical Review E*, 62, 8114–8132.
63. HUH, J.-H., HIDAKA, Y., ROSSBERG, A. G., AND KAI, S. (2000). Pattern formation of chevrons in the conduction regime in homeotropically aligned liquid crystals. *Physical Review E*, 61(3), 2769–2776.
64. AMM, H., STANNARIUS, R., AND ROSSBERG, A. G. (1999). Optical characterization of chevron texture formation in nematic electroconvection. *Physica D*, 126(3-4), 171–188.
65. ROSSBERG, A. G. AND KRAMER, L. (1998). Pattern formation from defect chaos—a theory of chevrons. *Physica D*, 115(1-2), 19–28.
66. PLAUT, E., DECKER, W., ROSSBERG, A. G., KRAMER, L., PESCH, W., BELAIDI, A., AND RIBOTTA, R. (1997). New symmetry breaking in nonlinear electroconvection of nematic liquid crystals. *Phys. Rev. Lett.*, 79(12), 2367–2370.
67. ROSSBERG, A. G. AND KRAMER, L. (1996). Weakly nonlinear theory of electroconvection in homeotropically oriented nematic liquid crystals. *Phys. Scr.*, T67, 121–124.
68. ROSSBERG, A. G., HERTRICH, A., KRAMER, L., AND PESCH, W. (1996). Weakly nonlinear theory of pattern-forming systems with spontaneously broken isotropy. *Physical Review Letters*, 76(25), 4729–4732.
69. PREDTECHENSKY, A. A., MCCORMICK, W. D., SWIFT, J. B., ROSSBERG, A. G., AND SWINNEY, H. L. (1994). Traveling wave instability in sustained double-diffusive convection. *Phys. Fluids*, 6(12), 3923–3935.

Reports, Conference Papers, Book Chapters

70. ROSSBERG, A. G., CASKENETTE, A., AND BERSIER, L.-F. (2017). Structural instability of food webs and food-web models and their implications for

- management. In J. C. Moore, P. C. de Ruiter, K. S. McCann, and W. V. (eds.), *Adaptive Food Webs: Stability and Transitions of Real and Model Ecosystems*, chap. 22, pp. 373–383. Cambridge University Press, Cambridge.
71. ROSSBERG, A. G., UUSITALO, L., BERG, T., ZAIKO, A., BORJA, A., AND LYNAM, C. (2015). Choosing indicators and their target ranges to assess sustainable use of marine ecosystems. In *Choosing indicators and their target ranges to assess sustainable use of marine ecosystems*, vol. Milestone Report 13 of DEVOTES Project, pp. 4–30.
 72. ICES (2014). Report of the Working Group on the Ecosystem Effects of Fishing Activities (WGECO). *ICES Document CM 2014/ACOM:26*, Copenhagen.
 73. ROSSBERG, A. G., ROGERS, T., AND MCKANE, A. J. (2013). How, if, and why species form. *The Scientist*, 27(11).
 74. ICES (2013). Report of the Working Group on the Ecosystem Effects of Fishing Activities (WGECO). *ICES Document CM 2013/ACOM:25*, Copenhagen.
 75. ROSSBERG, A. G. (2012). Food webs. In A. Hastings and L. Gross (eds.), *Encyclopedia of Theoretical Ecology*, pp. 294–302. University of California Press, Berkeley, CA.
 76. ICES (2012). Report of the Working Group on the Ecosystem Effects of Fishing Activities (WGECO). *ICES Document CM 2012/ACOM:26*, Copenhagen.
 77. ICES (2011). Report of the Working Group on the Ecosystem Effects of Fishing Activities (WGECO). *ICES Document CM 2011/ACOM:24*, Copenhagen.
 78. ROSSBERG, A. G., FARNSWORTH, K. D., AND REID, D. (2010). Analytic theory of size-spectrum dynamics. In *Proceedings of the ICES Annual Science Conference 2010, Nantes*, p. C:17. International Council for the Exploration of the Sea, Copenhagen.
 79. ROSSBERG, A. G. AND REID, D. (2009). Food-web models as tools for ecosystem-based management. In *Proceedings of the ICES Annual Science Conference 2009, Berlin*, p. P:10. International Council for the Exploration of the Sea, Copenhagen.
 80. ICES (2009). Report of the Working Group on the Ecosystem Effects of Fishing Activities (WGECO). *ICES Document CM 2009/ACOM:20*, Copenhagen.
 81. ROSSBERG, A. G., YOSHIDA, K., AND ISHII, R. (2008). Introduction to special section on current food-web theory. *Ecological Complexity*, 5(1), 71–72.
 82. ROSSBERG, A. G. (2008). The problem of biodiversity. In *JST Presto Symposium on Mathematical Sciences towards Environmental Problems*, vol. 136 of *Hokkaido University Technical Report Series in Mathematics*, pp. 20–23. Hokkaido University Sapporo, Sapporo.

83. ROSSBERG, A. G. AND ITOH, K. (2007). A theory of food-web topology. In *Report on "Environmental Risk Management for Bio/Eco-Systems"*, chap. 24, pp. 183–188. Yokohama National University, Yokohama.
84. ROSSBERG, A. G. (2007). Some first principles of complex systems theory. *RIMS Kôkyûroku*, 1551, 129–136.
85. MATSUDA, H., URANO, K., ROSSBERG, A. G., KOIKE, F., AMEMIYA, T., MAKINO, M., MORINO, M., KUBO, T., SHIMODE, S., NAKAI, S., KATO, M., AND SHIGEOKA, T. (2007). Basic procedures of risk management. In *Principles and Methods for Ecological Risk Management*, chap. 4, pp. 43–54. Ohmsha. In Japanese.
86. HERWIG, J., RIEGLER, P., FRIEDRICHS, R., ROSSBERG, A. G., AND BARTHOLOMÉ, K. (2004). Diagnosis in flow: Diagnostic functionalities for vortex flowmeters. *VDI Berichte*, 1829, 777–783+920.
87. ROSSBERG, A. G., RIEGLER, P., BUHL, F., HERWIG, J., AND TIMMER, J. (2003). Detection of improper mounting from the sensor signal of vortex flowmeters. In *Proceedings of the 11th FLOMEKO*.
88. ROSSBERG, A. G. (2003). A generic scheme for choosing models and characterizations of complex systems. <http://arxiv.org/abs/physics/0308018>.
89. ROSSBERG, A. G. (2003). A computational theory of modelling. *AIP Conference Proceedings*, 661(1), 270.

Patents

90. BUHL, F., RIEGLER, P., ROSSBERG, A., AND TIMMER, J. (2008). Verfahren zur Messung von Durchflüssen, sowie Durchflussmesser. German Patent Office, DE 103 21 003 B4 2008.05.21.
91. ROSSBERG, A., BARTHOLOMÉ, K., TIMMER, J., FRIEDRICHS, J., AND BUHL, F. (2004). Measuring apparatus and method for flow measurement. European Patent Office, EP 1 528 372 A2.
92. BUHL, F., HERWIG, J., PAPENBROCK, A., RIEGLER, P., ROSSBERG, A., AND TIMMER, J. (2004). Method for monitoring a measuring instrument, in particular a flow meter and a measuring device for carrying out said method. World Intellectual Property Organization, WO 2004/006199 A2.

Theses

93. ROSSBERG, A. G. (1997). *The Amplitude Formalism for Pattern-Forming Systems with Spontaneously Broken Isotropy and some Applications*. Disser-

tation, Universität Bayreuth.

94. ROSSBERG, A. G. (1994). *Onset of Double Diffusive Convection in Hele-Shaw Geometry*. Master's thesis, The University of Texas at Austin.