

Bernhelm Booss-Bavnbek
Lektor Emeritus
Institut for Naturvidenskab og Miljø
Matematik og Fysik (IMFUFA)
CIRCLES - Centre for Interdisciplinary Research and Education in Circular
Economy and Sustainability
Postadresse:
Universitetsvej 1
27.2
DK-4000
Roskilde
Danmark
E-mail: booss@ruc.dk
Telefon: +45 46 74 22 82
Mobil: +45 53 85 19 49
Hjemmeside: <http://www.ruc.dk/~booss>
Web: <http://www.ruc.dk/~booss>, <http://www.ruc.dk/~booss>



Ansættelse

Lektor Emeritus

Institut for Naturvidenskab og Miljø
Roskilde Universitet
31 dec. 2015 → present

Lektor Emeritus

Matematik og Fysik (IMFUFA)
Roskilde Universitet
Roskilde, Danmark
1 feb. 1977 → present

CIRCLES - Centre for Interdisciplinary Research and Education in Circular Economy and Sustainability

Roskilde Universitet
1 okt. 2017 → present

Publikationer

Emergence of multiplicity of time scales in the modeling of climate, matter, life, and economy

Booss-Bavnbek, B., Pedersen, U. R. & Pedersen, R. K., 1 jul. 2019, 55 s. ArXiv.org - Cornell University.

China can decrease leverage by levying real estate tax

Booss-Bavnbek, B. & Yu, C., 8 apr. 2019, I : Shenzhen Daily. 1 s.

Emergence of multiple time scales: Contribution to International Conference on Transforming for Sustainability

Booss-Bavnbek, B., Pedersen, U. R. & Pedersen, R. K., 28 nov. 2018.

Straf Danske Bank for hvidvask - det er ikke nok at sige undskyld

Booss-Bavnbek, B., 15 aug. 2018, I : Information.

China's debt threat and the price of apartments

Booss-Bavnbek, B. & Yu, C., 13 aug. 2018, I : Financial Times. 2018

Venezuela efter valget

Booss-Bavnbek, B., 1 jun. 2018, I : Dagbladet Arbejderen.

Obituary: Philip J. Davis

Booss-Bavnbek, B. & Booss-Bavnbek, S., maj 2018, I : S I A M News. 51, 4, s. 3 1 s.

The Maslov index in symplectic Banach spaces

Booss-Bavnbek, B. & Zhu, C., 2 apr. 2018, I : Memoirs of the American Mathematical Society. 252, 1201, 123 s.

Ansichtennachlese zur Oktoberrevolution: Zeitgenössische Ansichten aus drei sehr unterschiedlichen Perspektiven

Booss-Bavnbek, B., 31 mar. 2018, I : Forum Wissenschaft. 35, 1, s. 43-46 5 s.

Leben in einer mathematisierten Welt? Stärken und Grenzen mathematischer Denkart und mathematisch gestützter Technologie

Booss-Bavnbek, B., 2018, (Under udarbejdelse) Springer Science+Business Media. 350 s.

Nøgtern analyse, tak!

Booss-Bavnbek, B., 7 nov. 2017, (Ikke-udgivet) 2 s..

Oktoberrevolutionen i broget fokus

Booss-Bavnbek, B., 3 nov. 2017, I : Dagbladet Arbejderen. 3.november 2017, 3 s.

Crossroads in the process of mathematization exemplified by early astronomy

Booss-Bavnbek, B., 11 okt. 2017. 9 s.

Man skal anerkende Oktoberrevolutionens kamp for social lighed

Booss-Bavnbek, B., 5 sep. 2017, I : Dagbladet Information.

Mathematics: Easy and Hard. Why?

Booss-Bavnbek, B., sep. 2017, I : Mathematical Intelligencer. 39, 3, s. 61-72 12 s.

Towards a canon of mathematization

Booss-Bavnbek, B., 18 aug. 2017. 5 s.

Hvad sker der egentlig i Venezuela? Kan Venezuela ses som laboratorium for vores tid, det 21. århundrede?

Booss-Bavnbek, B. & Hansen, A., 22 nov. 2016

David D. Bleeker (1948–2016)

Booss-Bavnbek, B. & Csordas, G., aug. 2016, I : Notices of the American Mathematical Society. 63/7, s. 828-828 1 s.

Interfaces between Geometric Analysis and Mathematical Physics: July 2016, Scientific report

Booss-Bavnbek, B., Lesch, M., Marinescu, G., Reshetikhin, N. & Vertman, B., 10 jul. 2016, 1 s.

Vi er ved at indføre en ny slags systemkontrol

Booss-Bavnbek, B., 6 apr. 2016, I : Politiken.

North Korea claims first hydrogen bomb test: Mathematical verification aspects

Booss-Bavnbek, B., 7 jan. 2016, I : Financial Times. 1 s.

Livtag med fem flygtningemyter

Booss-Bavnbek, B. & Hansen, A., 17 nov. 2015, I : Altinget | Justits. 2015-11-17, 3 s.

Rückblick auf die Hamburger Jahrestagung der DMV

Booss-Bavnbek, B., 7 okt. 2015, (Afsendt) 1 s..

Booss-Bavnbek on Feferman

Booss-Bavnbek, B., 1 jun. 2015, I : Zentralblatt für Mathematik und ihre Grenzgebiete. Zbl 062206015, 3 s.

The multi-dimensional Morse-Smale index

Booss-Bavnbek, B., 20 feb. 2015

Albin, Pierre; Rochon, Frederic: Some index formulae on the moduli space of stable parabolic vector bundles

Booss-Bavnbek, B., 2015, I : Zentralblatt für Mathematik und ihre Grenzgebiete. Zbl 062139594, 2 s.

Li, Ping: The rigidity of Dolbeault-type operators and symplectic circle actions

Booss-Bavnbek, B., 2015, I : Zentralblatt für Mathematik und ihre Grenzgebiete. Zbl 060388311, 2 s.

On the difficulties of acquiring mathematical experience: Case rural education: Sobre as dificuldades na aquisição da experiência matemática: Caso da educação rural

Booss-Bavnbek, B., 23 jul. 2014, I : EM TEIA | Revista de Educação Matemática e Tecnológica Iberoamericana. 5, 1, s. 1-17 17 s.

The Maslov index in symplectic Banach spaces

Booss-Bavnbek, B. & Zhu, C., 3 jun. 2014

Another jewel of a paper: Comments to P.J. Davis, "The relevance of the irrelevant beginning"

Booss-Bavnbek, B., 23 apr. 2014, I : ScienceOpen. 2014, 3 s.

Index Theory with Applications to Mathematics and Physics

Booss-Bavnbek, B. & Bleecker, D., 5 okt. 2013, Somerville, MA (USA): International Press of Boston, Inc. 792 s.

The Maslov index in weak symplectic functional analysis

Booss-Bavnbek, B. & Zhu, C., okt. 2013, I : Annals of Global Analysis and Geometry. 44, 3, s. 283-318 36 s.

Is mathematics invading human cells? Impressions from a collaboration with diabetes doctors

Booss-Bavnbek, B., 1 mar. 2013, I : Mathematical Intelligencer. 35, 1, s. 6-15 10 s.

Unity and Disunity in Mathematics

Booss-Bavnbek, B. & Davis, P. J., 1 mar. 2013, I : EMS Newsletter. 87, s. 28-31 4 s.

Zeit und Verstehen: Verstehen braucht Zeit. Zeit braucht Verstehen.

Booss-Bavnbek, B., 2 nov. 2012, *Per Anhalter durch die Turing-Galaxis*. Kurz, C. (red.). Monsenstein und Vannerdat, s. 1-2 2 s.

Matematikken på vej ind i cellerne? Indtryk fra et samarbejde med diabeteslæger

Booss-Bavnbek, B., apr. 2012, I : Matilde. 44, s. 4-10 7 s.

Unity in Major Themes: Convergence vs. Arbitrariness in the Development of Mathematics

Booss-Bavnbek, B. & Davis, P. J., apr. 2012. 9 s.

Alan Turings Wirken in Münster - Kommentar: Es gab aber auch einen anderen Hasenjaeger

Booss-Bavnbek, B., 2012, I : D M V - Mitteilungen. 20, 2, s. 69-70 2 s.

Om at klippe og klistre bølgelængder: Spot på forskningen

Booss-Bavnbek, B., 2012, *Årsberetning 2011*. Roskilde: Roskilde Universitet, s. 80-81 2 s. (Roskilde Universitetscenter. Årsberetning, Bind 2011).

Perturbation of sectorial projections of elliptic pseudo-differential operators

Booss-Bavnbek, B., Chen, G., Lesch, M. & Zhu, C., 2012, I : *Journal of Pseudo-Differential Operators and Applications*. 3, 1, s. 49–79 31 s.

Towards a nano geometry? Geometry and dynamics on nano scale

Booss-Bavnbek, B., 2012, I : *Contemporary Mathematics*. 584, s. 147-162 16 s.

BetaSys: Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells

Booss-Bavnbek, B. (red.), Klösgen, B. (red.), Larsen, J. K. (red.), Pociot, F. M. (red.) & Renström, E. (red.), 29 jan. 2011, New York: Springer. 558 s. (Systems Biology, Bind 2).

Geometric and electromagnetic aspects of fusion pore making

Booss-Bavnbek, B., Apushkinskaya, D., Apushkinskyi, E. & Koch, M., 29 jan. 2011, *BetaSys: Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells*. Booss-Bavnbek, B., Klösgen, B., Larsen, J., Pociot, F. & Renström, E. (red.). New York: Springer Science+Business Media, s. 505-538 34 s. (Systems Biology, Bind 2).

Preface, BetaSys: Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells

Booss-Bavnbek, B., Klösgen, B., Larsen, J. K., Pociot, F. M. & Renström, E., 29 jan. 2011, *BetaSys: Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells*. New York: Springer Science+Business Media, s. v-vii 3 s. (Systems Biology, Bind 2).

Basic Functional Analysis Puzzles of Spectral Flow

Booss-Bavnbek, B., 2011, I : *Journal of the Australian Mathematical Society*. 90, s. 145–154 10 s.

Perturbation of Sectorial Projections of Elliptic

Booss-Bavnbek, B., Chen, G., Lesch, M. & Zhu, C., 29 dec. 2010

Flower Power i Hyderabad: Indtryk fra den Internationale Matematikerkongress ICM 2010, Hyderabad, 19.-27. august 2010

Booss-Bavnbek, B., okt. 2010, I : *Matilde*. 40, s. 4-6 3 s.

Flower Power in Hyderabad: Eindrücke vom ICM 2010

Booss-Bavnbek, B., sep. 2010, I : *Mitteilungen der Deutschen Mathematiker-Vereinigung (DMV)*. 18, 3, s. 148-152 5 s.

Intra-cellular Control of Insulin Secretion

Booss-Bavnbek, B., 16 aug. 2010

New Paths Towards Quantum Gravity

Booss-Bavnbek, B. (red.), Esposito, G. (red.) & Lesch, M. (red.), maj 2010, Heidelberg: Springer. (Lecture Notes in Physics; Nr. 807).

Preface: New Paths Towards Quantum Gravity

Booss-Bavnbek, B., Esposito, G. & Lesch, M., maj 2010, *New Paths Towards Quantum Gravity*. Heidelberg: Springer, s. ix-xiv 6 s. (Lecture Notes in Physics; Nr. 807).

Capturing Structure and Function of The Human Cell: Through Future and Emerging ICT

Booss-Bavnbek, B., 22 jan. 2010

Steps Towards Quantum Gravity and the Practice of Science: Will the Merger of Mathematics and Physics Work?

Booss-Bavnbek, B., 2010, I : *Lecture Notes in Physics*. 807, s. 339-354 17 s.

The invertible double of elliptic operators

Booss-Bavnbek, B. & Lesch, M., 29 jan. 2009, I : Letters in Mathematical Physics. 87, 1-2, s. 19-46 26 s.

Continuous Variation of Cauchy data spaces. Task - results - Open Problems

Booss-Bavnbek, B., Lesch, M. & Zhu, C., 2009, arXiv:0911.4460v1 [math.DG]: ArXiv.org - Cornell University, 4 s.

Geometric and electromagnetic aspects of fusion pore making

Apushkinskaya, D., Apushkinskiy, E., Booss-Bavnbek, B. & Koch, M., 2009, arXiv:0912.3738v1 [math.AP]: ArXiv.org - Cornell University, 30 s.

Random curves - Journeys of a mathematician by Neal Koblitz

Booss-Bavnbek, B., 2009, I : Mathematical Intelligencer. 31, 4, s. 65-67 3 s.

REx Workshop "Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells: Copenhagen, February 17-18, 2009

Booss-Bavnbek, B., 2009

Steps towards "Quantum Gravity" and the practice of science. Will the merger of mathematics and physics work?

Booss-Bavnbek, B., 2009, arXiv:0911.4182v1 [math-ph]: ArXiv.org - Cornell University, 17 s.

The Calderón projection: New definition and applications

Booss-Bavnbek, B., Lesch, M. & Zhu, C., 2009, I : Journal of Geometry and Physics. 59, 7, s. 784-826 43 s.

The mathematical microscope in bio-medicine, Colloquium, Bonn, Hausdorffzentrum, Okt. 2009: Traditional vs. New, Organs and Organisms, Populations, Diabetes mellitus: Medical Pull and Scientific-Technological Push

Booss-Bavnbek, B., 2009, 35 s.

The mathematization of the individual sciences - revisited

Booss-Bavnbek, B., 2009, I : Journal of Contemporary Mathematical Analysis - Armen Acad Scienc. 44, 2, s. 81-96 16 s.

Jeder ist Sieger: Debatte. Bernhelm Booß-Bavnbek führte an der Uni Bonn den ersten linken Asta, Gerd Langguth kämpfte im RCDS. Der RM hat beiden dieselben zehn Fragen gestellt. Was bleibt von der alten Kluft?

Booss-Bavnbek, B., 3 jan. 2008, I : Rheinischer Merkur. 2008, 1, s. 8-8 1 s.

Krzysztof P. Wojciechowski (1953-2008)

Booss-Bavnbek, B. & Kaminker, J., 2008, I : Notices of the American Mathematical Society. 55, 9, s. 1109-1109 1 s.

The Calderon Projection: New Definition and Applications

Booss-Bavnbek, B., Lesch, M. & Zhu, C., 2008, www.arxiv.org: ArXiv.org - Cornell University. 58 s.

The invertible double of elliptic operators

Booss-Bavnbek, B., Lesch, M. & Zhu, C., 2008, www.arxiv.org: ArXiv.org - Cornell University. 5 s.

The Geometry and Dynamics of the Bilayer Membrane-Vesicle Fusion Event in Animal Cells – An Invitation: Based on joint ongoing work with D. Apushkinskaya (Saarbrücken), M. Koch (München and Copenhagen) and N. Uraltseva (St. Petersburg), Applied Analysis Meeting, 16-18 Aug. 2007, København

Booss-Bavnbek, B., 20 aug. 2007, Roskilde

The Calderón Projection of Elliptic Differential Operators: New Definition and New Applications

Booss-Bavnbek, B., 17 mar. 2007, Roskilde

Quantitative and Qualitative Aspects of the Spread of Methicillin Resistant *Staphylococcus aureus* (MRSA): The Austin-Kakehashi-Anderson Model Revisited

Booss-Bavnbek, B., 5 jan. 2007, Roskilde

Manch ein Professor unterstützte uns

Booss-Bavnbek, B., 2007, *Protest und Provokation: Bonner Studenten 1967/1968*. Bothien, H-P. (red.). Essen: Klartext Verlag, s. 113-114 2 s.

Proceedings of the Workshop on Mathematical Modeling of Membrane Processes in Animal Cells: Roskilde University, Denmark, 29 June - 1 July 2006

Booss-Bavnbek, B., Otto, A. M., Pedersen, M. & Shillcock, J., 2007, Singapore and London: World Scientific. 122 s. (Biophysical Reviews and Letters; Nr. Special Issue).

Quantum Gravity: Unification of Principles and Interactions, and Promises of Spectral Geometry

Booss-Bavnbek, B., Esposito, G. & Lesch, M., 2007, I : SIGMA. Symmetry, Integrability and Geometry. 3, 29 s.

Quantum gravity: unification of principles and interactions, and promises of spectral geometry.

Booss-Bavnbek, B., Esposito, G. & Lesch, M., 2007, www: ArXiv.org - Cornell University, s. 1-23, 23 s.

Towards modeling of membrane processes in animal cells

Booss-Bavnbek, B., Otto, A. M., Pedersen, M. & Shillcock, J., 2007, I : Biophysical Reviews and Letters. 2, 1, s. 1-4 4 s.

Unis wohin? Die Top-down Erneuerung in Dänemark und anderswo

Booss-Bavnbek, B., 2007, I : Forum Wissenschaft. 24, 2, s. 42-42 1 s.

Analysis, Geometry and Topology of Elliptic Operators: Papers in Honour of K. P. Wojciechowski. Proceedings of a Workshop. May 2005, Roskilde

Booss-Bavnbek, B. (red.), Lesch, M. (red.), Klimek, S. (red.) & Zhang, W. (red.), 2006, London, Singapore: World Scientific. 540 s.

Stor matematik mellem Prado og Escorial: Personlige indtryk fra ECM 2006, Madrid

Booss-Bavnbek, B., 2006, I : Matilde. 29, s. 13-17 5 s.

General spectral flow formula for fixed maximal domain

Booss-Bavnbek, B. & Zhu, C., 2005, I : Central European Journal of Mathematics. 3, 3, s. 558-577 20 s.

Spectral Geometry of Manifolds with Boundary and Decomposition of Manifolds: Proceedings of a Workshop, August 2003, Roskilde University, Denmark

Booss-Bavnbek, B., Grubb, G. & Wojciechowski, K. P., 2005, Providence, R.I., U.S.A.: American Mathematical Society. 328 s. (Contemporary Mathematics; Nr. 366).

Unbounded Fredholm operators and spectral flow

Booss-Bavnbek, B., Phillips, J. & Lesch, M., 2005, I : Canadian Journal of Mathematics - Journal Canadien de Mathematiques. 57, 2, s. 225-250

Was bedeutet die Mathematisierung des Krieges?

Booss-Bavnbek, B., 2005, I : FIFF-Kommunikation. 22, 2/2005, s. 27-33 7 s.

Mathematik und Krieg

Booss-Bavnbek, B., 2004, I : Blätter für Deutsche und Internationale Politik. 11, s. 1382-1391

Spectral invariants of operators of Dirac type on partitioned manifolds

Booss-Bavnbek, B. & Bleecker, D., 2004, *Aspects of Boundary Problems in Analysis and Geometry*. Gil, J. B., Krainer, T. & Witt, I. (red.). Basel: Birkhäuser Verlag, s. 1-130

Weak symplectic functional analysis and general spectral flow formula

Booss-Bavnbek, B. & Zhu, C., 2004, math.DG/0406139 udg. Los Alamos, USA: ArXiv.org - Cornell University. 57 s.

Introduction

Booss-Bavnbek, B. & Høyrup, J., 2003, *Mathematics and war*. Booss-Bavnbek, B. & Høyrup, J. (red.). Basel: Birkhäuser Verlag, s. 1-19

Matematica e guerra

Booss-Bavnbek, B. & Høyrup, J., 2003, I : Lettera Matematica Pristem. 47, s. 5-12

Mathematics and war: an invitation to revisit

Booss-Bavnbek, B. & Høyrup, J., 2003, I : Mathematical Intelligencer. 25, 3, s. 12-25 14 s.

Mathematics and war

Booss-Bavnbek, B. (red.) & Høyrup, J. (red.), 2003, Basel: Birkhäuser Verlag. 416 s.

Agora: mathematics, mathematics education and war

Booss-Bavnbek, B., 2002, *Proceedings of the Third International Mathematics Education and Society Conference: Elsingore, Denmark, April 2002*. Valero, P. & Skovsmose, O. (red.). Roskilde / Aalborg: Centre for Research in Learning Mathematics

Feature: mathematics and war

Booss-Bavnbek, B. & Høyrup, J., 2002, I : EMS Newsletter. 46, s. 20-22

ICM 2002 i Beijing

Booss-Bavnbek, B., 2002, I : Matilde. 14, s. 14-15

Spectral flow of paths of self-adjoint Fredholm operators

Booss-Bavnbek, B., Lesch, M. & Phillips, J., 2002, I : Nuclear physics B, Proceedings supplements. 104, 1-3, s. 177-180

Weak UCP and perturbed monopole equations

Booss-Bavnbek, B., Marcolli, M. & Wang, B-L., 2002, I : International Journal of Mathematics. 13, 9, s. 987-1008 20 s.

Weak UCP and perturbed monopole equations

Booss-Bavnbek, B., Marcolli, M. & Want, B-L., 2002, Roskilde: Roskilde Universitet. 28 s. (Tekster fra IMFUFA; Nr. 408).

Criss-cross reduction of the Maslov index and a proof of the Yoshida-Nicolaescu theorem

Booss-Bavnbek, B., Furutani, K. & Otsuki, N., 2001, I : Tokyo Journal of Mathematics. 24, 1, s. 113-128

Unbounded Fredholm operators and spectral flow

Booss-Bavnbek, B., Lesch, M. & Phillips, J., 2001, Roskilde: Roskilde Universitet. 32 s. (Tekster fra IMFUFA; Nr. 407).

Bedre miljø med matematiske modeller?

Booss-Bavnbek, B., 2000, I : Miljøesk. 19, s. 4-9

The geometry of cauchy data spaces: this report is dedicated to the memory of Jean Leray (1906-1998)

Booss-Bavnbek, B., Furutani, K. & Wojciechowski, K. P., 2000, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 385).

Unique continuation property for dirac operators, revisited

Booss-Bavnbek, B., 2000, I : Contemporary Mathematics. 258, s. 21-32

Boundary reduction of spectral invariants and unique continuation property

Booss-Bavnbek, B., 1999, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 367).

Criss-cross reduction of the Maslov index and a proof of the Yoshida-Nicolaescu theorem

Booss-Bavnbek, B., 1999, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 199).

Facts and fiction of the Kosovo war: new qualities of warfare?

Booss-Bavnbek, B., Jørgensen, B. C. & Rasmussen, R. O., 1999, *The Kosovo war in the rear-view mirror of science: conference on the war catastrophe, Roskilde University, November 1999*. Czeskleba-Dupont, R. & Rasmussen, R. O. (red.). Roskilde: Roskilde Universitet, (Publikationer fra Institut for geografi og internationale udviklingsstudier. Arbejdsrapport; Nr. 154).

Geometric aspects of partial differential equations: proceedings of a Minisymposium on Spectral Invariants, Heat Equation Approach, September 18-19, 1998, Roskilde, Denmark

Booss-Bavnbek, B. (red.) & Wojciechowski, K. P. (red.), 1999, Providence, R.I.: American Mathematical Society. (Contemporary Mathematics; Nr. 242).

Symplectic functional analysis and spectral invariants

Booss-Bavnbek, B. & Furutani, K., 1999, *Geometric aspects of partial differential equations: proceedings of a Minisymposium on Spectral Invariants, Heat Equation Approach, September 18-19, 1998, Roskilde, Denmark*. Booss-Bavnbek, B. & Wojciechowski, K. (red.). Providence, R.I.: American Mathematical Society, s. 53-83 (Contemporary Mathematics; Nr. 242).

Symplectic functional analysis and spectral invariants

Booss-Bavnbek, B., 1999, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 361).

Determinants, manifolds with boundary and dirac operators

Booss-Bavnbek, B., Morchio, G., Scott, S. & Wojciechowski, K. P., 1998, *Clifford algebras and their applications in mathematical physics*. Dietrich, V. (red.). Dordrecht: Kluwer Academic Publishers, s. 423-432

Die Verharmlosung der Nazivergangenheit durch deutsche Mathematiker

Booss-Bavnbek, B., 1998, I : Bulletin für Faschismus- und Weltkriegsforschung. 11, s. 50-56

Mathematik und die Medien: Kommentar zu einem komplizierten Verhältnis

Booss-Bavnbek, B. & Davis, P. J., 1998, I : Forum Wissenschaft. 15, 2, s. 6-9

The Maslov index: a functional analytical definition and the spectral flow formula

Booss-Bavnbek, B., 1998, I : Tokyo Journal of Mathematics. 21, s. 1-34

The zeta-determinant and canonical determinant on the Grassmannian in dimension one

Booss-Bavnbek, B., Scott, S. & Wojciechowski, K. P., 1998, I : Letters in Mathematical Physics. 45, s. 353-362

Grassmannian and chiral anomaly

Booss-Bavnbek, B., 1997, I : Journal of Geometry and Physics. 22, s. 219-244

Anmeldelse af Ole Skovsmose: Towards a philosophy of critical mathematics education. 1996.

Booss-Bavnbek, B., 1996, I : ZDM - Zentralblatt für Didaktik der Mathematik. 28, 3, s. 76-80

Go on with environmental modeling?

Booss-Bavnbek, B., 1996, I : SIAM News - Society for Industrial and Applied Mathematics. 29, 9, s. 6-7 + 14

Grassmannian and boundary contribution to the z-determinant

Wojciechowski, K. P., Scott, S. G., Marchio, G. & Booss-Bavnbek, B., 1996, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 320).

Grassmannian and chiral anomaly

Booss-Bavnbek, B. & Wojciechowski, K. P., 1996, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 312).

Memories and memorials

Booss-Bavnbek, B., 1995, I : Mathematical Intelligencer. 17, 2, s. 15-20

Mode - prediction - action: mathematics induced changes in science, technology and public thinking

Booss-Bavnbek, B., 1995, I : Res Humanae. 1, s. 113-172

The Maslov index: a functional analytical definition and the spectral flow formula

Booss-Bavnbek, B. & Furutani, K., 1995, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 305).

Perspectives on Teichmüller and the Jahresbericht

Booss-Bavnbek, B., 1994, 2 udg. Roskilde: Roskilde Universitet. 76 s. (Tekster fra IMFUFA; Nr. 275).

Dirac operators and manifolds with boundary

Booss-Bavnbek, B. & Wojciechowski, K. P., 1993, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 248).

Partitioned manifolds and invariants in dimensions 2, 3, and 4

Booss-Bavnbek, B. & Wojciechowski, K. P., 1993, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 260).

Perspectives on Teichmüller and the jahresbericht addendum to Schappacher, Scholz, et al.

Booss-Bavnbek, B., 1993, Roskilde: Roskilde Universitet. (Tekster fra IMFUFA; Nr. 249).

Vurdering af matematisk teknologi

Booss-Bavnbek, B., Plate, G., Jensen, J. H. & Bohle-Carbonell, M., 1988, Roskilde: Roskilde Universitet, 94 s.

Machbarkeit nichtbeherrschbarer technik durch fortschritte in der erkennbarkeit der natur

Booss-Bavnbek, B. & Bohle-Carbonell, M., 1987, Roskilde: Roskilde Universitet, 31 s.

Pseudo-differential projections and the topology of certain spaces of elliptic boundary value problems

Booss-Bavnbek, B. & Wojciechowski, K. P., 1987, Roskilde: Roskilde Universitet, 17 s.

The calderón projektor for operators with splitting elliptic symbols

Booss-Bavnbek, B. & Wojciechowski, K. P., 1987, Roskilde: Roskilde Universitet, 23 s.

Desuspension of splitting elliptic symbols 11

Booss-Bavnbek, B. & Wojciechowski, K. P., 1985, Roskilde: Roskilde Universitet, s. 63.

Von Mathematik und Krieg: über die Bedeutung von Rüstung und militärischen Anforderungen für die Entwicklung der Mathematik in Geschichte und Gegenwart

Booss-Bavnbek, B. & Høyrup, J., 1984, Marburg. (Schriftenreihe Wissenschaft und Frieden ; Nr. 1984:1). (Tekster fra IMFUFA; Nr. 64).

Aktiviteter

Interfaces between Geometric Analysis and Mathematical Physics

Bernhelm Booss-Bavnbek (Deltager)

7 maj 2018 → 11 maj 2018

Crossroads in the process of mathematization exemplified by early astronomy

Bernhelm Booss-Bavnbek (Oplægsholder)

11 okt. 2017

International workshop on graphs, semigroups, and semigroup acts

Bernhelm Booss-Bavnbek (Deltager)

10 okt. 2017 → 13 okt. 2017

Emeriti-Seminar Institut for Naturvidenskab og Miljø

Bernhelm Booss-Bavnbek (Deltager)

18 aug. 2017

Analysis and Geometry of Graphs and Manifolds

Bernhelm Booss-Bavnbek (Deltager)

31 jul. 2017 → 4 aug. 2017

Interfaces between Geometric Analysis and Mathematical Physics

Bernhelm Booss-Bavnbek (Arrangør)

4 jul. 2016 → 8 jul. 2016

Udstilling på RUB "1970ernes vesttyske Berufsverbot: 'Glemte' historie. Om politisk sindelagskontrol i Forbundsrepublikken Tyskland" (in english)

Bernhelm Booss-Bavnbek (Arrangør), , Karin Englev (Arrangør), , Trine Winther Jphannsen (Arrangør), & Marianne Grothe (Arrangør)

11 apr. 2016 → 10 maj 2016

Temadag

Bernhelm Booss-Bavnbek (Arrangør)

8 apr. 2016

Liv i en matematiseret verden?: Om at tælle, tænke og handle

Bernhelm Booss-Bavnbek (Foredragsholder)

24 nov. 2015 → 8 dec. 2015

2015 annual meeting of the Deutschen Mathematiker-Vereinigung

Bernhelm Booss-Bavnbek (Arrangør)

22 sep. 2015 → 23 sep. 2015

Workshop on geometric and singular analysis

Bernhelm Booss-Bavnbek (Deltager)

11 feb. 2015 → 13 feb. 2015

The multi-dimensional Morse-Smale index: Analytic and Geometric Structures, Brainstorming

Bernhelm Booss-Bavnbek (Foredragsholder)

10 feb. 2015

Elliptic operators on manifolds with boundary and pseudo-differential projections: Dedicated to Matthias Lesch

Bernhelm Booss-Bavnbek (Foredragsholder)

17 maj 2014

Geometric Structures and Spectral Invariants

Bernhelm Booss-Bavnbek (Arrangør)

16 maj 2014 → 19 maj 2014

Geometric and Singular Analysis
Bernhelm Booss-Bavnbek (Taler)
28 mar. 2014

The Maslov index in symplectic Banach spaces
Bernhelm Booss-Bavnbek (Foredragsholder)
28 mar. 2014

The *mathematical microscope* in bio-medicine: Organs, populations, metabolic diseases
Bernhelm Booss-Bavnbek (Foredragsholder)
23 okt. 2009

International Conference on "New Developments in Spectral Theory"
Bernhelm Booss-Bavnbek (Deltager)
5 okt. 2009 → 6 okt. 2009

Tokyo University of Science
Bernhelm Booss-Bavnbek (Gæsteforsker)
2 okt. 2009 → 8 okt. 2009

MoNa-ansøgningen til *Villum Kann Rasmussen Fund*: Model-based Nanoparticle Labelling of Pancreatic β -cells (MoNa)
Bernhelm Booss-Bavnbek (Deltager)
1 apr. 2009 → 30 sep. 2009

REx Workshop "Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells"
Bernhelm Booss-Bavnbek (Arrangør)
16 feb. 2009 → 19 feb. 2009

FP7-NMP Proposal *SCAN*: System for Cellular Analysis by Nanotechnology
Bernhelm Booss-Bavnbek (Deltager)
1 dec. 2008 → 31 maj 2009

FP7-HEALTH Proposal *REx*: Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells
Bernhelm Booss-Bavnbek (Deltager)
31 okt. 2008 → 28 feb. 2009

Quantum Gravity - An Assessment
Bernhelm Booss-Bavnbek (Oplægsholder)
17 maj 2008 → 18 maj 2008

FP7-NMP Proposal *CIGN*: Capturing Insulin Granule Dynamics by Nanotechnology
Bernhelm Booss-Bavnbek (Deltager)
1 dec. 2007 → 31 dec. 2008

Kriegens neue Qualität
Bernhelm Booss-Bavnbek (Oplægsholder)
8 okt. 1999 → 9 okt. 1999

Intersection indices in Lagrangian analysis and spectral invariants of partitioned manifolds
Bernhelm Booss-Bavnbek (Oplægsholder)
29 aug. 1999 → 3 sep. 1999

Sécurité, liberté et qualité de recherche en modèles mathématiques d'environnement fondé sur les obligations courantes de l'enseignement

Bernhelm Booss-Bavnbek (Oplægsholder)
10 dec. 1998 → 11 dec. 1998

Zukunftsorientierung durch simulationen und modellberechnungen?

Bernhelm Booss-Bavnbek (Oplægsholder)
17 okt. 1995 → 20 okt. 1995

Elliptic boundary problems and chiral symmetry breaking

Bernhelm Booss-Bavnbek (Oplægsholder)
2 maj 1995

Model-prediction-action: mathematics induced changes in science, technology and public thinking

Bernhelm Booss-Bavnbek (Oplægsholder)
18 feb. 1995

Presse/medie

3/14: Nu skal pi fejres

Bernhelm Booss-Bavnbek
14/03/2014
1 element af Mediedækning

3/14: Nu skal pi fejres

Bernhelm Booss-Bavnbek
14/03/2014
1 element af Mediedækning

3/14: Nu skal pi fejres: I dag er det pi-dag, og det forunderlige tal fejres over hele kloden. Pi fascinerer, fordi det har uendelig mange decimaler, og fordi det dukker op, ja, utallige steder. Her er et portræt af »den matematiske skønhed«.

Bernhelm Booss-Bavnbek
14/03/2014
1 Mediebidrag

Eksotisk matematik giver nyt syn på det uforklarlige

Bernhelm Booss-Bavnbek
05/10/2010
1 element af Mediedækning

Eksotisk matematik giver nyt syn på det uforklarlige

Bernhelm Booss-Bavnbek
18/10/2010
1 element af Mediedækning

Et univers af uforenelige størrelser

Bernhelm Booss-Bavnbek
22/10/2010
1 element af Mediedækning

Hvorfor matematikere fejrer pi-dagen året

Bernhelm Booss-Bavnbek
14/03/2015
1 element af Mediedækning

Kommunister forbudt i Nazi-lærerværelset

Bernhelm Booss-BavnbeK

24/04/2016

1 element af Mediedækning

Lange Haare, kurzer Verstand? Die 68er: Wie sehen Alt-68er am Beginn des Rentenalters die Rebellion von damals? Was haben sie erreicht? Interview und Talkshow mit Prof. Dr. Bernhelm Booss-BavnbeK, Mathematiker, ehemaliger AStA-Vorsitzender Bonn

Bernhelm Booss-BavnbeK

24/11/2007

1 Mediebidrag

Matematikere vil hjælpe diabetikere

Bernhelm Booss-BavnbeK

15/06/2011

1 element af Mediedækning

Systemkritiker: Demokratiet må kunne tåle kritik

Bernhelm Booss-BavnbeK

16/04/2016

1 element af Mediedækning

The number π : Interview on π -Day 3/14_15

Bernhelm Booss-BavnbeK

14/03/2015

1 Mediebidrag

Bernhelm Booss-BavnbeK [booss@ruc.dk] is an emeritus at Roskilde Universitet (Denmark). He was educated at Universität Bonn (Germany) where in 1966 he was elected as president of the AStA (the student council) on a liberal program. He demanded a normalization of the relations to West Germany's eastern neighbors, including a higher appreciation of the scientific results achieved in these countries, and a wider range of possibilities for students to comment and criticize classes and to raise questions – all achievements quite common in Departments of Mathematics, but rather rebellious in humanities, law and economics. He wrote his PhD thesis under Fritz Hirzebruch as adviser and became director of an interdisciplinary center for the mathematization of the individual sciences at Universität Bielefeld (Germany). Without success, he ran for the Federal Parliament and for the Parliament of the state North-Rhine-Westphalia on a ticket of the Communist Party, and earned a Berufsverbot – professional interdiction. In the Western part of the divided Germany that was not so seldom at that time, the 1970s. To continue his academic career he had to leave the Federal Republic of Germany. In 1977, he found a challenging position at the newly founded Roskilde Universitet where he taught and researched since then. Challenging because half of the mathematics and science teaching in Roskilde is not in courses but in student initiated problem-oriented projects, organized by group work and under the supervision of an academic teacher.

Hence, besides of the scheduled rather standard classes, he had to learn something new in each semester in 40 years. Consequently, he earned a wide view on the full range of the history of mathematics and of the use (and misuse) of mathematical models in mathematics supported technology and research fields. While giving his teaching the priority in all these years, he struggled to keep the blood rolling in the umbilical cord connecting him with some of the most advanced segments of modern mathematical research, the geometric analysis and spectral geometry of global boundary value problems for Dirac type operators. He authored several books on index theory, low-dimensional geometry and mathematical physics and edited two anthologies, which became standard in the respective fields, one on Mathematics and War, the other on Systems Theory of Regulated Exocytosis of Pancreatic β Cells. In The Mathematical Intelligencer, he wrote occasionally about these two topics. His most recent book is joint work with ZHU Chaofeng (Tianjin). It is on The Maslov index in symplectic Banach spaces, in press with the Memoirs of the Amer. Math. Soc.. Presently he is working on a textbook *Leben in einer mathematisierten Welt? [Life in a mathematized world?]* to summarize his experiences with project work and mathematics applications - in his German mother tongue.

Since his retirement, he lives and works parts of the year in Italy and in different places of Eastern Europe that are favored by him and his wife, a military historian. To him, having fun with his grandchildren is the best relaxation and the most rewarding use of time.