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Employment

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Roskilde University
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Publications

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Symplectic functional analysis and spectral invariants

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Grassmannian and chiral anomaly
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Mode - prediction - action: mathematics induced changes in science, technology and public thinking
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The Maslov index: a functional analytical definition and the spectral flow formula
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Activities

Chern Institute of Mathematics and Laboratory of Pure Mathematics and Combinatorics (LPMC), Nankai University, Tianjin
Bernhelm Booss-Bavnbek (Visiting researcher)
23 Nov 2023 → 4 Dec 2023

Mathematisches Kolloquium Potsdam
Bernhelm Booss-Bavnbek (Speaker)
25 Oct 2023

University of Copenhagen
Bernhelm Booss-Bavnbek (Visiting researcher), Chaofeng Zhu (Visiting researcher) & Niels Martin Möller (Visiting researcher)
10 Aug 2023

34th International Workshop on Operator Theory and its Applications
Bernhelm Booss-Bavnbek (Speaker)
31 Jul 2023 → 4 Aug 2023

Institut für Mathematik Universität Potsdam Campus Golm, Haus 9
Bernhelm Booss-Bavnbek (Visiting researcher)
21 Jul 2023

Martin-Luther-University Halle-Wittenberg
Bernhelm Booss-Bavnbek (Visiting researcher)
18 Jul 2023 → 20 Jul 2023

Chaofeng Zhu

Bernhelm Booss-Bavnbek (Host)
16 Jul 2023 → 15 Aug 2023

29th Nordic Congress of Mathematicians

Bernhelm Booss-Bavnbek (Speaker)
3 Jul 2023 → 6 Jul 2023

IMFUFA-seminar

Bernhelm Booss-Bavnbek (Speaker)
22 Mar 2023

Differential Geometry and its Applications (Journal)

Bernhelm Booss-Bavnbek (Editor)
2023 → 2024

Publicacions Matemàtiques (Journal)

Bernhelm Booss-Bavnbek (Editor)
2023 → 2024

2nd Nordic Biomathematics Days

Johnny T. Ottesen (Organizer), Rasmus Kristoffer Pedersen (Organizer), Christian Berrig (Speaker), Thomas Stiehl (Speaker), Bernhelm Booss-Bavnbek (Speaker) & Morten Andersen (Organizer)
9 May 2022 → 10 May 2022

Interfaces between Geometric Analysis and Mathematical Physics

Bernhelm Booss-Bavnbek (Participant)
7 May 2018 → 11 May 2018

Crossroads in the process of mathematization exemplified by early astronomy

Bernhelm Booss-Bavnbek (Speaker)
11 Oct 2017

International workshop on graphs, semigroups, and semigroup acts

Bernhelm Booss-Bavnbek (Participant)
10 Oct 2017 → 13 Oct 2017

Emeriti-Seminar Institut for Naturvidenskab og Miljø

Bernhelm Booss-Bavnbek (Participant)
18 Aug 2017

Analysis and Geometry of Graphs and Manifolds

Bernhelm Booss-Bavnbek (Participant)
31 Jul 2017 → 4 Aug 2017

Interfaces between Geometric Analysis and Mathematical Physics

Bernhelm Booss-Bavnbek (Organizer)
4 Jul 2016 → 8 Jul 2016

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

Bernhelm Booss-Bavnbek (Organizer), Karin Englev (Organizer), Trine Winther Johannsen (Organizer) & Marianne Grothe (Organizer)
11 Apr 2016 → 10 May 2016

Temadag

Bernhelm Booss-Bavnbek (Organizer)
8 Apr 2016

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

Bernhelm Booss-Bavnbek (Lecturer)
24 Nov 2015 → 8 Dec 2015

2015 annual meeting of the Deutschen Mathematiker-Vereinigung

Bernhelm Booss-Bavnbek (Organizer)
22 Sept 2015 → 23 Sept 2015

Workshop on geometric and singular analysis

Bernhelm Booss-Bavnbek (Participant)
11 Feb 2015 → 13 Feb 2015

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

Bernhelm Booss-Bavnbek (Lecturer)
10 Feb 2015

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

Bernhelm Booss-Bavnbek (Lecturer)
17 May 2014

Geometric Structures and Spectral Invariants

Bernhelm Booss-Bavnbek (Organizer)
16 May 2014 → 19 May 2014

Geometric and Singular Analysis

Bernhelm Booss-Bavnbek (Speaker)
28 Mar 2014

The Maslov index in symplectic Banach spaces

Bernhelm Booss-Bavnbek (Lecturer)
28 Mar 2014

The mathematical microscope in bio-medicine: Organs, populations, metabolic diseases

Bernhelm Booss-Bavnbek (Lecturer)
23 Oct 2009

International Conference on "New Developments in Spectral Theory"

Bernhelm Booss-Bavnbek (Participant)
5 Oct 2009 → 6 Oct 2009

Tokyo University of Science

Bernhelm Booss-Bavnbek (Visiting researcher)
2 Oct 2009 → 8 Oct 2009

MoNa-ansøgningen til Villum Kann Rasmussen Fund: Model-based Nanoparticle Labelling of Pancreatic β -cells (MoNa)

Bernhelm Booss-Bavnbek (Participant)
1 Apr 2009 → 30 Sept 2009

REx Workshop "Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells"

Bernhelm Booss-Bavnbek (Organizer)

16 Feb 2009 → 19 Feb 2009

FP7-NMP Proposal SCAN: System for Cellular Analysis by Nanotechnology

Bernhelm Booss-Bavnbek (Participant)

1 Dec 2008 → 31 May 2009

FP7-HEALTH Proposal REx: Systems Biology of Regulated Exocytosis in Pancreatic Beta-Cells

Bernhelm Booss-Bavnbek (Participant)

31 Oct 2008 → 28 Feb 2009

Quantum Gravity - An Assessment

Bernhelm Booss-Bavnbek (Speaker)

17 May 2008 → 18 May 2008

FP7-NMP Proposal CIGN: Capturing Insulin Granule Dynamics by Nanotechnology

Bernhelm Booss-Bavnbek (Participant)

1 Dec 2007 → 31 Dec 2008

Kriegens neue Qualität

Bernhelm Booss-Bavnbek (Speaker)

8 Oct 1999 → 9 Oct 1999

Intersection indices in Lagrangian analysis and spectral invariants of partitioned manifolds

Bernhelm Booss-Bavnbek (Speaker)

29 Aug 1999 → 3 Sept 1999

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

Bernhelm Booss-Bavnbek (Speaker)

10 Dec 1998 → 11 Dec 1998

Zukunftsorientierung durch simulationen und modellberechnungen?

Bernhelm Booss-Bavnbek (Speaker)

17 Oct 1995 → 20 Oct 1995

Elliptic boundary problems and chiral symmetry breaking

Bernhelm Booss-Bavnbek (Speaker)

2 May 1995

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

Bernhelm Booss-Bavnbek (Speaker)

18 Feb 1995

Press / Media

3/14: Nu skal pi fejres

Bernhelm Booss-Bavnbek

14/03/2014

1 item of Media coverage

3/14: Nu skal pi fejres

Bernhelm Booss-Bavnbek

14/03/2014

1 item of Media coverage

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 Media contribution

Eksotisk matematik giver nyt syn på det uforklarlige

Bernhelm Booss-Bavnbek

05/10/2010

1 item of Media coverage

Eksotisk matematik giver nyt syn på det uforklarlige

Bernhelm Booss-Bavnbek

18/10/2010

1 item of Media coverage

Et univers af uforenelige størrelser

Bernhelm Booss-Bavnbek

22/10/2010

1 item of Media coverage

Hvorfor matematikere fejrer pi-dagen året

Bernhelm Booss-Bavnbek

14/03/2015

1 item of Media coverage

Kommunister forbudt i Nazi-lærerværelset

Bernhelm Booss-Bavnbek

24/04/2016

1 item of Media coverage

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 Media contribution

Matematikere vil hjælpe diabetikere

Bernhelm Booss-Bavnbek

15/06/2011

1 item of Media coverage

Systemkritiker: Demokratiet må kunne tåle kritik

Bernhelm Booss-Bavnbek

16/04/2016

1 item of Media coverage

The number π: Interviewon π-Day 3/14_15

Bernhelm Booss-Bavnbek

14/03/2015

1 Media contribution

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.