

## SVEN BACHMANN

Department of Mathematics  
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Swiss citizen  
 Born October 18, 1980

Since 2017 Assistant Professor of Mathematics,  
 The University of British Columbia, Canada

## PAST POSITIONS

2013 - 2017 Professor of Applied Mathematics – W2  
 Institute of Mathematics, University of Munich (LMU), Germany  
 2013 Researcher  
 Institute for Theoretical Physics, ETH Zurich, Switzerland  
 2012 - 2013 Postdoctoral fellow and  
 2009 - 2012 A.J. Krener Assistant Professor  
 Department of Mathematics, University of California, Davis, USA  
 Mentor: *Prof. B. Nachtergaele*  
 2005 Assistant  
 Institute of Theoretical Physics, EPF Lausanne, Switzerland

## EDUCATION

2005 - 2009 Doctor of Science in mathematical physics, ETH Zurich, Switzerland  
 Advisor: *Prof. G.M. Graf*  
 2000 - 2005 Master of Science in physics, EPF Lausanne, Switzerland  
 Advisor: *Prof. C.E. Pfister*  
 2004 Master project, Department of Applied Mathematics, University of Waterloo, Canada  
 Advisor: *Prof. A. Kempf*  
 2002 - 2003 Study abroad year, University of Waterloo, Canada

## FELLOWSHIPS, GRANTS, AWARDS

2017 *AHP Prize 2016*  
 ‘For the most remarkable paper published in the journal *Annales Henri Poincaré*’  
 2015 ERC Starting Grant, Step 2: Interview in Brussels  
 2012 NSF Grant for participation in the Young Researcher Symposium and the International  
 Congress on Mathematical Physics (ICMP12)  
 2005 *Prix August Dommer* (EPFL)  
 ‘University-wide best average grade for the master program’  
 2002 *Prix René Cousin* (EPFL)  
 ‘Best average grade in first and second year and special abilities in mathematics’

## ACADEMIC TEACHING

Advisor	At LMU: Five Master theses, seven Bachelor theses
UBC	Undergraduate level: Linear algebra (Honours)
LMU	Graduate level: Topologically ordered spin systems, Mathematical quantum mechanics I, Mathematical statistical physics I & II Undergraduate level: Complex analysis, Partial differential equations Seminars: Theory of distributions, Asymptotic completeness for the $N$ -body problem in QM, Matrix analysis, Explicit methods for PDEs, Introduction to the calculus of variations, Analytic inequalities, Mathematics of the quantum Hall effect
UC Davis	Graduate level: Mathematical classical mechanics Undergraduate level: Differential equations, Calculus
ETHZ	Teaching assistant: Thermodynamics, Statistical physics, Electrodynamics, General relativity, Mechanics of continuous media, Quantum field theory
EPFL	Teaching assistant: Quantum field theory, Probability&statistics, Quantum mechanics

## SERVICE

Organizer	Local organizing committee: <i>ICMP18</i> , Montreal Seminar coordinator: <i>Differential Geometry, Mathematical Physics &amp; Partial Differential Equations</i> , UBC
Referee for	Communications in Mathematical Physics Journal of the London Mathematical Society Journal of Statistical Physics Reviews in Mathematical Physics Journal of Mathematical Physics Physical Review Letters
Examiner	Two PhD committees (LMU & Warwick University)
At LMU	Admission committee for the master programme <i>Theoretical &amp; Mathematical Physics</i> ; Hiring committee of a Full Professor of Mathematics (2014-2015)

## SELECTED INVITED TALKS

May '17	<i>Master Class on Exotic Phases of Matter</i> , Copenhagen University, Denmark
Feb '17	<i>Mathematical Aspects of Disordered Systems</i> , ETHZ, Switzerland
Nov '16	<i>CRC Seminar</i> , Hausdorff Center, Bonn, Germany
Aug '16	<i>Methods of Modern Mathematical Physics, A Young Researcher Symposium on the Occasion of the 70th Birthday of Barry Simon</i> , The Fields Institute, Toronto, Canada
May '16	<i>Colloquium of pure mathematics</i> , Hamburg University, Germany
June '15	<i>Quantum Spin Systems: Recent Advances</i> , University of Cergy-Pontoise, France
June '15	<i>Quantum many-body systems, random matrices, and disorder</i> , ESI, Vienna, Austria
Sept '14	<i>Laplacians, Random Walks, Bose Gas, Quantum Spin Systems</i> , Bristol University, UK
June '14	<i>Spectral Days</i> , CIRM, Marseille, France
May '13	<i>Workshop on Analytical Aspects of Mathematical Physics</i> , ETHZ, Switzerland
Aug '12	<i>Young Researcher Symposium, ICMP12</i> , Aalborg, Denmark
Jul '11	<i>Summer School on 'Non-equilibrium Statistical Mechanics'</i> , CRM, Montreal, Canada
May '11	<i>FRG Workshop on quantum spin systems and quantum computation</i> , Harvard University, Boston, USA

Feb '11      *Western States Mathematical Physics Meeting*, Caltech, Los Angeles, USA  
Dec '10      *First AMS-SoMaChi joint meeting*, Pucón, Chile  
Jul '09      *Dissipation, Decoherence, Transport*, ETHZ, Switzerland  
Jul '08      *Summer School on Current Topics in Mathematical Physics*, ESI, Vienna, Austria

## LANGUAGES – spoken and written

French: mother tongue

English: fluent

German: fluent