Curriculum Vita of Omri Moshe Sarig

PERSONAL DETAILS

Faculty of Mathematics & Computer Science
Weizmann Institute of Science
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EDUCATION

2001   Ph.D. (with distinction), Tel-Aviv University
       Supervisor: J. Aaronson.

1997   M.Sc. (summa cum laude), Tel-Aviv University
       Supervisor: J. Aaronson.

1994   B.Sc. (summa cum laude), Tel-Aviv University

EMPLOYMENT HISTORY

2014–present   Full Professor
                 Weizmann Institute of Science, Israel
                 From 2010: Theodore R. and Edlyn Racoosin Chair

2009–2014   Associate Professor
                 Weizmann Institute of Science, Israel
                 From 2010: Theodore R. and Edlyn Racoosin Chair

2006–2011   Associate Professor of Mathematics
                 The Pennsylvania State University, Pennsylvania, USA

2003–2006   Assistant Professor of Mathematics
                 The Pennsylvania State University, Pennsylvania, USA

2000–2003   Position: Warwick Zeeman Lecturer
                 Mathematics Institute, Warwick University, England

PROFESSIONAL ACTIVITIES AND RECOGNITION

Honors

2013	Michael Brin Prize in Dynamical Systems
	Erdős Prize (Israel Mathematical Union)
	Levinson Prize in Mathematics (Weizmann Institute Scientific Council)
2010	Invited Speaker, International Congress of Mathematicians (International Mathematical Union)
2006	Sloan Research Fellowship (Alfred P. Sloan Foundation)
2002	Nessyaho Prize (best PhD in math in Israel for the year 2001) (Israel Mathematical Union)
	Award to Newly Appointed Lecturers (Nuffield Foundation)
2000	Gilboa Award for Research Students (Wolf Foundation)

Research Grants

2018	ISF Grant 1149/18, four years (principle investigator)
2017	BSF Grant n° 2016105, four years (co-principle investigator)
2014	ISF Grant 199/14, four years (principle investigator)
2009	ERC Starting Grant n° 239885, five years (principle investigator)
2007	NSF award DMS 0652966, three years (principle investigator)
2004	NSF award DMS 0400687, three years (principal investigator)
2002	EPSRC grant GR/R90406/01, for a year–long symposium (co-investigator)

Prize committees

2018	ICM Program committee (panel member)
2017	Nessyaho Prize committee (chair)
2016	Junior Brin Prize committee (member)

Advisory boards of research agencies

Reviewed research proposals for the following organizations:

The National Science Foundation (US)	*Simons Foundation* (US)
Fundação para a Ciência e a Tecnologia (Portugal)	*The Chilean Research Fund Council*
Natural Sciences and Engineering Research Council of Canada	*Agence National de la Recherche* (France)
The Engineering and Physical Sciences Research Council (UK)	*European Research Council (EU)*
Narodowe Centrum Nauki (Poland)	*Israel Science Foundation*

Participation in editorial boards

Member of the editorial board of *Journal of Modern Dynamics* (2013–present)

Co-editor of a special volume of *Stochastics & Dynamics* (March 2004 Issue)

Refereed papers for the following journals:

American Journal of Mathematics	*Advances in Mathematics*
Annals of Mathematics	*Annales de l'Institute Henri Poincaré*
Bulletin de la Société Mathematique de France	*Communications in Mathematical Physics*
Discrete and Continuous Dynamical Systems	*Duke Mathematical Journal*
Ergodic Theory and Dynamical Systems	*Fundamenta Mathematica*
International Mathematics Research Notices	*Inventiones Mathematicae*
Israel Journal of Mathematics	*Journal of Modern Dynamics*
Journal of Statistical Physics	*Letters in Mathematical Physics*
Mathematical Research Letters	*Nonlinearity*
Pacific Journal of Mathematics	*Probability Theory and Related Fields*
Proceedings of the American Mathematical Society	*Proceedings of the London Mathematical Society*
Stochastics and Dynamics	*Studia Mathematica*
Transactions of the American Mathematical Society	*Journal of the American Mathematical Society*

Invited mini-courses and lecture series

2020   *The transfer operator method* (5 lectures)
        Hausdorff Mathematical Institute, Bonn, Germany

2016   *Thermodynamic formalism for countable Markov shifts* (3 lectures)
        Erwin Schrödinger Institute, Vienna, Austria

2015   *Basic ergodic theory* (5 lectures)
        Gulbenkian Foundation Summer School, Lisbon, Portugal

        Horocycle flows on surfaces with infinite genus (3 two-hour lectures)
        TIFR, Mumbai, India

2014   *Symbolic dynamics for geodesic flows* (2 lectures)
        Working seminar on dynamical systems, Penn State, USA

2013   *Thermodynamic formalism for countable Markov shifts* (3 lectures)
        Large deviations and thermodynamical formalism, EPFL, Lausanne, Switzerland

        The transfer operator method (2 two-hour lectures)
        Penn State working seminar on dynamical systems, Penn State, USA

        Markov partitions for diffeomorphisms (3 two-hour lectures)
        Copernicus University in Toruń, Poland

2012   *Introduction to the transfer operator method* (5 lectures)
        Second Brazilian school on dynamical systems, Saõ Carlos, Brazil

        Infinite invariant measures for horocycle flows (4 lectures)
        Ergodic Geometry and Dynamics in the Moduli Space, CIRM, Luminy, France

Markov partitions for surface diffeomorphisms (5 lectures)
School and conference on dynamical systems, ICTP, Trieste, Italy

Markov partitions for surface diffeomorphisms (3 two–hour lectures)
Poncelet Laboratory, Moscow, Russia

2011 *Introduction to ergodic theory* (5 two–hour lectures)
Modern dynamics and its interactions with analysis, geometry, and number theory, Będlewo, Poland

Markov partitions for surface diffeomorphisms (2 lectures)
Workshop on ergodic theory and dynamical systems, Warwick, UK

2011 *Markov partitions for surface diffeomorphisms* (3 two–hour lectures)
Working seminar on dynamical systems, Penn State, USA

2006 *Critical phenomena for dynamical systems* (3 lectures)
International Workshop on Global Dynamics Beyond Uniform Hyperbolicity, Northwestern, Illinois, USA

2003 *Thermodynamic formalism for countable Markov shifts* (3 lectures)
Rennes seminar on dynamical systems, Rennes, France

2002 *Thermodynamic formalism for countable Markov shifts* (2 lectures)
Workshop on countable Markov shifts, Luminy, France

Invited talks in conferences

2019 Beyond uniform hyperbolicity, CIRM, Marseille, France
Thermodynamic formalism, Mittag-Leffler, Stockholm, Sweden
Thermodynamic formalism, Warwick University, Coventry, UK

2018 Dynamics seminar, Scuola Normale Superiore di Pisa, Italy
Recent Progress in Ergodic Theory, Research Institute of Mathematical Sciences, Kyoto, Japan
Ergodic aspects of dynamical systems, Będlewo, Poland

2017 Mathematical Congress of the Americas, Montreal, Canada
Bowen Legacy Conference, UBC, Vancouver, Canada
Workshop on Infinite ergodic theory and related fields, Tel Aviv Univeristy, Israel

2016 Ergodic geometry (Ledrappier-fest), Paris, France
Penn State-Maryland Conference, Penn State, State College PA, USA

2015 Fifty years of ergodic theory in Jerusalem, Hebrew university, Jerusalem
Ergodic theory and dynamical systems, Będlewo, Poland

2014 Ergodic Theory and Dynamical Systems, Toruń, Poland
Progress in Dynamics (Katokfest), Banff, Canada

2013 Homogeneous Dynamics, Unipotent Flows and Applications (Ratnerfest), Hebrew University, Israel
German–Polish Joint Conference on Probability and Mathematical Statistics, Toruń, Poland

2012   Ergodic Theory and Number Theory, Tokyo, Japan
        "Action Now" meeting, Hebrew University, Jerusalem

2011   Trends in dynamics, Northwestern, Evanston, USA
        Workshop on dynamical systems, Penn State, State College, USA
        Workshop on dynamical systems. University of Maryland, College Park, USA

        Beyond uniform hyperbolicity 2011, Luminy, Marseille, France
        Israel–Poland Mathematical meeting, Łódź, Poland

2010   International Congress of Mathematicians, Hyderabad, India
        Meeting of the Israel Mathematical Union, semi–plenary talk
        One day meeting on ergodic theory, Paris VI, France

2009   Workshop on dynamical systems and related fields, University of Maryland, College Park USA
        Dynamical systems II, University of North Texas, Denton, USA
        Special session on group actions on homogeneous spaces, AMS meeting, Washington DC, USA

2008   Workshop on dynamical systems and related fields, University of Maryland, USA
        Infinite ergodic theory, Université de Rennes, France

2007   Measures and Dynamics on Groups and Homogeneous Spaces, TATA, Mumbai, India
        Nonuniformly Hyperbolic Dynamics and Smooth Ergodic Theory, Instituto Superior Técnico, Lisbon, Portugal
        Equadiff, Technical University of Vienna, Vienna, Austria

2006   Théorie ergodique en mesure infinie, Université Picardie Jules Verne, Amiens, France (2 lectures)
        Bristol Sessions in Advanced Mathematics: Effective equidistribution, Bristol, United Kingdom

2005   Dynamics and Related Fields, University of Maryland, MD
        Colloquium in Dynamical Systems and Smooth Ergodic Theory, Université Bordeaux 1, France
        Workshop on Probabilistic Limit Laws for Dynamical Systems, Edinburgh, United Kingdom
        Rigidity, Dynamics, and Group Actions, Banff, Alberta, Canada

2004   Algebraic and Topological Dynamics, MPIM, Bonn, Germany
        Recent Progress in Dynamics, MSRI, CA
        Workshop on Dynamics, University of Maryland, MD
        Complex Dynamics, RIMS, Kyoto, Japan

2003   Hayashibara Forum, Oxford and Warwick, England
        Advances in Hyperbolic Dynamics, ETH Zürich, Switzerland

2002   LMS Meeting on Ergodic Theory, Manchester, England
       Holomorphic Iteration and Non-uniform Hyperbolicity, Warsaw, Poland
       Meeting on Dynamical Systems, Göttingen, Germany

2001   Théorie ergodique et systèmes dynamiques, Villetaneuse, Paris, France
       Partially Hyperbolic Dynamical Systems, University of Surrey, UK

2001   Non-Hyperbolic Dynamical Systems, Göttingen, Germany
       Systèmes Dynamiques, CIRM, Luminy, France
       Third UK-Japan Winter School, Bury st Edmunds, UK

1999   Harmonic Analysis and Zeta Functions, Göttingen, Germany
       Meeting on Random Dynamical Systems, MFO, Oberwolfach, Germany
       Israel Mathematical Union Meeting, Haifa University, Haifa, Israel

1997   Israel Mathematical Union Meeting, Bar-Ilan University, Israel

Seminar talks and colloquia

2019   Action Now Seminar, Weizmann, Israel
       Statistical mechanics seminar, Weizmann, Israel
       Ergodic theory seminar, Paris VI, France
       Dynamics seminar, Paris-Sud, France
       Dynamics seminar, Rennes, France
       Ergodic theory seminar, KIAS, Seoul
       Colloquium, POSTECH, Pohang, S. Korea
       Homogeneous spaces seminar, Technion, Israel

2018   Dynamics seminar, Hebrew University, Jerusalem
       Dynamics seminar, Centro de Giorgi, Pisa

2017   Colloquium, Northwestern University, USA
       Dynamics seminar, University of Chicago, USA

2016   British Mathematical Colloquium, Bristol, UK
       Yeshiva University Colloquium, New York City, USA
       NYC dynamics seminar, New York City, USA
       Ergodic theory seminar, Bristol, UK

2014   Universite of Paris-Sud, France
       Université Nice Sophia Antipolis, France
       Ben Gurion University, Beer-Sheba, Israel

2013   Institute of Mathematics of the Polish Academy of Sciences, Warsaw
       Penn State University

2012   Moscow Independent University, Russia
IMPA, Rio de Janeiro, Brazil
University of Saõ Paolo, Brazil
Hebrew University, Jerusalem
Tel Aviv University

2011   Northwestern, Evanston, USA
Penn State, University Park, USA
Technion, Haifa, Israel
Hebrew university, Jerusalem, Israel (colloquium)

2010   Hebrew university, Jerusalem, Israel (colloquium)
Penn State university
Tel-Aviv University

2009   Tel Aviv University, Israel (colloquium)
Ben–Gurion University, Beer–Sheba, Israel (colloquium)
Technion, Haifa, Israel (colloquium)
Ohio State University, Columbus, USA (colloquium)
ETH Zürich, Switzerland

2008   Tel Aviv University, Israel
CUNY, New York, USA
University of Surrey, Guildford, UK
University of Bristol, UK
Warwick University, Coventry, UK

2007   Tel Aviv University, Israel
Hebrew University, Israel
University of Chicago, IL
Penn State University, State College, PA
Ohio State University, Columbus, OH

2006   Hebrew University, Jerusalem, Israel
Notre–Dame University, Southbend, IN
Princeton University, Princeton, NJ
University of Warwick, Coventry, England

2005   Ben-Gurion University, Beer-Sheva, Israel
Caltech, Pasadena, CA
Princeton University, Princeton, NJ
Northwestern University, Evanston, IL
Institut Henri Poincaré, Paris France (two hours)

2004   Hebrew University, Jerusalem, Israel
        Ben-Gurion University, Beer-Sheva, Israel
        Tel-Aviv University, Tel-Aviv, Israel
        University of Washington, Seattle WA
        Université de Rouen, Rouen, France
        Budapest University of Technology and Economics, Budapest, Hungary
        Cornell University, Ithaca, NY
        Ohio State University, Columbus, OH
        Courant Institute of Mathematical Sciences, New York, NY
        Penn State University, State College, PA (two talks)

2003   University of East-Anglia, Norwich, England
        Georgia Institute of Technology, Atlanta, GA
        Penn State University, State College, PA (two talks)
        Warwick University, Coventry, England
        University of Bristol, Bristol, England (colloquium)

2002   Technion, Haifa, Israel
        Université de Rennes I (two talks)
        Hebrew University at Jerusalem, Israel (two talks)
        Tel-Aviv University, Israel (two talks)
        Warwick University, Coventry, England (two talks)

2001   University of Manchester, Manchester, England
        University of Liverpool, Liverpool, England (colloquium)
        Tel-Aviv University, Tel-Aviv, Israel
        Warwick University, Coventry, England
        Université de Paris-Sud, Orsay, France

2000   Queen Mary University of London, London, England
        Hebrew University at Jerusalem, Israel
        Tel-Aviv University, Tel-Aviv, Israel
        Warwick University, Coventry, England

1999   Université de Paris-Sud, Orsay, France
        Hebrew University at Jerusalem, Israel
        Tel-Aviv University, Tel-Aviv, Israel

Visiting positions

2019   Univesité Paris-Sud, Paris, France, (3 months)
       IHÉS, Bures-sur-Yvette, France (1.5 months)

2013   Copernicus University in Toruń, Poland (one month)

2012   IMPA, Rio de Janeiro, Brazil (two weeks)

2011   Penn State University, Pennsylvania (two weeks)

2009   ETH, Zürich, Switzerland (one week)

2008   University of Surrey, Guildford, UK (two weeks)

2007   University of Notre Dame Indiana (two weeks)

2006   Princeton University, Princeton, New-Jersey (two weeks)
       University of Bristol, Bristol, United Kingdom (two weeks)
       Université Picardie Jules Verne, Amiens, France (two weeks)

2005   Institut Henri Poincaré, Paris, France (one month)

2004   Max–Planck–Institut für Mathematik, Bonn, Germany (one month)
       Institut de Recherche Mathématique de Rennes, Rennes, France (two weeks)

2001   Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France (two months)

SERVICE

Head, Department of Mathematics (2014–2018)

Faculty hiring committee, member (2012–2018)

Weizmann institute hiring committee ("V9"), (2013–2017).

Feinberg Graduate School Thesis committee, member (2010–2014)

Conferences co-organized

2019   *Dynamics, geometry, and combinatorics*, Bernoulli center, EPFL, Lausanne, Switzerland (October 21-25, 2019)

2018   *Two day meeting on infinite ergodic theory (Aaronson-fest)*, Hebrew University, Jerusalem
       (February 13–14, 2018)

2017   *A workshop on mathematical physics*, Weizmann Institute of Science, (January 24–25, 2017)

2011   *Section on ergodic theory and dynamical systems*, Annual meeting of the Israel Mathematical Union
       Bar–Ilan (June 16 2011).

2010   *Action Day Seminar*, Weizmann Institute (December 3, 2010)
Infinite Ergodic Theory and Related Fields, Weizmann Institute (June 27–July 1, 2010)

2008   *Penn State–Maryland Workshop on Dynamics*, Penn State (October 23–26, 2008)

2007   *Dynamical Ideas in Geometry, Topology and Number Theory*, Penn State (May 5–6, 2007)

2003   *Symbolic Dynamics and Ergodic Theory*, Warwick (July 7–August 18, 2003)
Year long symposium on Geometric and Probabilistic Aspects of Dynamics, Warwick, 2002-2003

2001   *Complex Dynamics and Ergodic Theory*, Warwick (January 19–21, 2001)

TEACHING EXPERIENCE

New lecture courses designed

Graduate level	Advanced undergraduate level
*Ergodic theory**	*Measure theory**
*Thermodynamic formalism**	*Probability theory from an analytic point of view*
Dynamical systems (year long)	*Linear analysis*

* Lecture notes are available on my personal web page

Other courses taught

Calculus, *Calculus with Analytic Geometry*, *Classical Analysis*, *Complex Analysis*

Other teaching activities

Numerous lecture series and mini-courses, see page 3

Lectures to mathematically gifted high-school youths or advanced undergraduates in the following forums:

2013   Open day for prospective students, Weizmann Institute

2012   Ulpana De Shalit, Weizmann Institute
Math Olympiad Club, Weizmann Institute
Kupcinet–Getz Summer program, Weizmann Institute

2011   PMASS (special semester for advanced undegraduates), Penn State University

2003   Mathematics Club, State College Area High School, Pennsylvania

GRADUATE STUDENTS AND RESEARCH PERSONNEL

Post-docs   Dr. Yuri Lima, Weizmann Institute, 2011–2013

Dr. Younghwan Son, Weizmann Institute, 2013–2015

Ph.D. students   Godofredo Iommi, Warwick University, graduated in 2004
Thesis title: *Multifractal analysis for countable Markov shifts*

Van T. Cyr, Penn State University, graduated in 2010
Thesis title: *Transient Markov shifts*

Yair Hartman, Weizmann Institute, graduated in 2015
Thesis title: *Stationary Actions, Random Walks on Groups and Furstenberg Entropy*

Ofer Shwartz, Weizmann Institute, graduated 2020
Thesis title: *Thermodynamic formalism of transient potentials*

Snir Ben-Ovadia, Weizmann Institute (ongoing)
Thesis topic: SRB measures

M.Sc. students   Yair Daon, Weizmann Institute, graduated in 2012
Thesis title: *Bernoullicity of equilibrium measures on countable Markov shifts*

Snir Ben-Ovadia, Weizmann Institute, graduated 2017
Thesis title: *Symbolic dynamics for diffeomorphisms of compact smooth manifolds with non-vanishing Lyapunov exponents*

Summer student   Eduard Duriev, Weizmann Institute (Kupcinet-Getz program), Summer 2012
Project: *Random walks driven by irrational rotations*

(Last update: February 2020)