

Buddhima Kasun Fernando Akurugodage

CONTACT INFORMATION

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EDUCATION

University of Maryland, College Park

2014 – 4th Year Mathematics PhD Student : Adviser – Dmitry Dolgopyat
2014 – 2016 MA in Mathematics

University of Colombo, Sri Lanka

2009 – 2014 B.Sc. in Mathematics

RESEARCH INTERESTS

Statistical Properties of Dynamical Systems
Ergodic Theory
Probability Theory

PAPERS AND PREPRINTS

- 2017 Edgeworth expansions for weakly dependent random variables (with Carlangelo Liverani) ([preprint](#))
- 2016 An error term in the Central Limit Theorem for sums of discrete random variables (with Dmitry Dolgopyat) ([submitted](#))

TALKS AT CONFERENCES AND SEMINARS

- 2017 *Edgeworth expansions for weakly dependent random variables*, Probability Seminar, University of Maryland (11 October)
- Edgeworth expansions for the Central Limit Theorem for dynamical systems*, Semi-annual Workshop in Dynamical Systems and Related Topics: Penn State University (05–08 October)
- Statistical properties of dynamical systems*, Math Department Seminar at University of Colombo, Sri Lanka (31 May)
- 2016 *An error term in the Central Limit Theorem for sums of discrete random variables*, Canadian Mathematical Society Winter Meeting, Niagara Falls (02–05 December)
- An error term in the Central Limit Theorem for sums of discrete random variables*, Semi-annual Workshop in Dynamical Systems and Related Topics: Penn State University (27–30 October)

TALKS AT STUDENT SEMINARS

- 2017 *Rare events and higher order asymptotics for large deviations*, Student Probability Seminar, University of Maryland (23 October)
- Ergodic theory of switching systems* (Expository), Student Dynamics Seminar, University of Maryland (12 September)
- Extension of limit theorems by spectral methods*, Student Dynamics Seminar, University of Maryland (11 April)
- 2016 *SRB measures for uniformly hyperbolic systems* (Expository), Student Dynamics Seminar, University of Maryland (22 October)

Dynamics on the upper half plane (Expository), Student Dynamics Seminar, University of Maryland (1 November)

An error term in the CLT for random variables with 3-atoms, Student Dynamics Seminar, University of Maryland (11 October)

2015 *SRB measures for uniformly expanding systems* (Expository), Student Dynamics Seminar, University of Maryland

CONFERENCES
ATTENDED

2017 Semi-annual Workshop in Dynamical Systems and Related Topics: Penn State University (05–08 October)

Conference on Mathematical Physics Perspective of Billiards and Dominoes: University of Massachusetts, Amherst (22–23 September)

Dynamics in Number Theory and Geometry: Queen’s University, Kingston, Canada (21–25 August)

Workshop on Dynamical Systems and Related Topics: University of Maryland, College Park (31 March–02 April)

2016 Stochastic Properties of Dynamical Systems session at Canadian Mathematical Society Winter Meeting, Niagara Falls (02–05 December)

Semi-annual Workshop in Dynamical Systems and Related Topics: Penn State University (27–30 October)

Workshop on Dynamical Systems and Related Topics: University of Maryland, College Park (15–17 April)

2015 Semi-annual Workshop in Dynamical Systems and Related Topics: Penn State University (22–25 October)

Workshop on Dynamical Systems and Related Topics: University of Maryland, College Park (18–20 April)

SCHOOLS AND
SEMESTERS

2017 Rigidity Phenomena via Ergodic Methods: University of Utah (31 July–04 August)

Thematic Month on Dynamical Systems and Interactions: Session on Homogeneous Spaces, Diophantine Approximation and Stationary Measures: Centre International de Rencontres Mathématiques (CIRM), Marseille, France (6–10 February)

2016 Connections Between Complex Dynamics, Statistical Physics, and Limiting Spectra of Self-similar Group Actions: IUPUI (15–19 August)

Houston Summer School on Dynamical Systems 2016: University of Houston (17–26 May)

Mixing and Averaging Methods in Dynamical Systems: Erwin Schrodinger Institute, Vienna, Austria (17–22 April)

2015 Getting Started with PDEs : Joint Research Conference of Israel Institute for Advanced Studies and Israel Science Foundation, held at the Hebrew University of Jerusalem, Israel (03 – 09 September)

IMA Summer Graduate Program on Modern Harmonic Analysis and its Applications: University of Maryland (20 July – 07 August)

Houston Summer School on Dynamical Systems 2015: University of Houston (20–28 May)

OTHER PROGRAMS
AND WORKSHOPS

- 2017 Mentor – Directed Reading Program for undergraduates:
Student: Linden Yuan, University of Maryland
Project: Ergodic Theorems.
Organizer of the Spring 2017 Student Dynamics Seminar at Department of Mathematics, University of Maryland.
Volunteer at the National Math Festival 2017 organized by MSRI.
Representatives of the College of Computer, Mathematical and Natural Sciences of University of Maryland in the Graduate School Fair at the McNair Conference 2017.
- 2016 Graduate student mentor for the incoming group of graduate students of the mathematics program in Fall 2016.
- 2015 Mentor at the Directed Reading Program for undergraduates:
Student: Adam Anderson, University of Maryland
Project: Using the random iteration algorithm to create fractals.
- 2014 One of the editors of the Grade 6 mathematics text book (to be used from 2015 to 2022) in Sri Lankan public schools.
One of the trainers of the Sri Lankan Team – International Mathematics Competition (IMC) for high school students, Daejeon, South Korea.
Observer for the Official Languages Commission, Sri Lanka.
- 2013 Leader and one of the trainers of the Sri Lankan Team – International Mathematics Competition (IMC) for high school students, Burgas, Bulgaria.
One of the trainers of the Sri Lankan Team for International Mathematical Olympiad (IMO), Santa Marta, Colombia.
- 2012 Leader and one of the trainers of the Sri Lankan Team – IMC for high school students, Taipei, Taiwan.
One of the trainers of the Sri Lankan Team – IMO, Mar del Plata, Argentina.
- 2011 Deputy Leader and one of the trainers of the Sri Lankan Team – IMC for high school students, Bali, Indonesia.
One of the trainers of the Sri Lankan Team – IMO, Amsterdam, Netherlands.
- 2010 Deputy Leader and one of the trainers of the Sri Lankan Team – IMC for high school students, Incheon, Korea.
One of the trainers of the Sri Lankan Team – IMO, Astana, Kazakhstan.
- 2008 One of the student organizers National Mathematics and Science Olympiad Competition, organized by the Ministry of Education, Sri Lanka.

HONORS AND
AWARDS

- 2014 Dean's Fellowship – *University of Maryland, College Park.*
Opportunity Grant – *Scholarship by USA–Sri Lanka Fulbright Commission and US Department of State.*
Joseph Nalliah Arumugam Memorial Gold Medal – *Highest academic competence at Faculty of Science, University of Colombo.*
Gulamhusein A. J. Noorbhai Gold Medal – *Best student majoring in Mathematics at University of Colombo.*
Douglas Amarasekera Prize – *Highest academic competence in Pure Mathematics at University of Colombo.*

- Dharmadasa Punchihewa Memorial Prize for Mathematics – *University of Colombo*.
- Mr. and Mrs. D. P. Epasinghe Memorial Gold Medal – *University of Colombo*.
- 2013 Bronze Medal – *International Mathematics Competition, Bulgaria*.
- 2012 Bronze Medal in Mathematics – *International Scientific Olympiad, Iran*.
- Mr. & Mrs. H. D. P. Gunawardena Memorial Prize in Physics and Mathematics – *Faculty of Science, University of Colombo*.
- 2011 P. P. Jayawickrema Memorial Scholarship for Physics – *Faculty of Science, University of Colombo*.
- 2010 Scholarship for the best results in freshman year – *Faculty of Science, University of Colombo*.
- 2008 Participation in the International Mathematical Olympiad – Madrid, Spain.
- 2007 Participation in the International Mathematical Olympiad – Hanoi, Vietnam.

TEACHING
EXPERIENCE

- At University of Maryland
- | | | | |
|---------|------|---------------------|--|
| Fall | 2017 | Grader | MATH670 ODE I |
| | | | MATH403 Introduction to Abstract Algebra |
| (Spring | 2017 | Research Assistant) | |
| Fall | 2016 | Teaching Assistant | MATH220 Elementary Calculus |
| Spring | 2016 | Grader | MATH310 Introduction to Proof |
| Fall | 2015 | Teaching Assistant | MATH141 Calculus II |
| Spring | 2015 | Teaching Assistant | MATH241 Calculus III |
| Fall | 2014 | Teaching Assistant | MATH220 Elementary Calculus |
- At University of Colombo
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| Feb–June | 2014 | Teaching Assistant | PM4003 Measure Theory |
| | | | PM3052 Real Analysis I |
| | | | PM3054 Topology I |
| | | | PM2001 Calculus II |

At Sri Lanka Olympiad Mathematics Foundation
2009–2014 A trainer of the Sri Lankan IMO and IMC teams.

REFERENCES

- Dmitry Dolgopyat**
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- Carlangelo Liverani**
Department of Mathematics, University of Rome, Tor Vergata, Italy
(39 06) 7259 4694 , liverani@mat.uniroma2.it
- Leonid Korolov**
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