

**PROCEDURA SELETTIVA DI CHIAMATA PER N. 1 POSTO DI RICERCATORE A TEMPO DETERMINATO DI TIPOLOGIA B PER IL SETTORE CONCORSUALE 01/A3 - SETTORE SCIENTIFICO-DISCIPLINARE MAT/06 - PRESSO IL DIPARTIMENTO DI SCIENZE DI BASE E APPLICATE PER L'INGEGNERIA DELL'UNIVERSITÀ DEGLI STUDI DI ROMA "LA SAPIENZA" BANDITA CON D.R. N. 3123/2017 DEL 1.12.2017**

**VERBALE N. 2 – SEDUTA VERIFICA TITOLI**

L'anno 2018, il giorno 27 del mese di Settembre in modalità telematica (via skype) si è riunita la Commissione giudicatrice della procedura selettiva di chiamata per n. 1 posto di Ricercatore a tempo determinato di tipologia B per il Settore concorsuale 01/A3 – Settore scientifico-disciplinare MAT/06 (Probabilità e Statistica Matematica) - presso il Dipartimento di Scienze di Base e Applicate per l'Ingegneria dell'Università degli Studi di Roma "La Sapienza", nominata con D.R. n. **1329/2018** del **21/05/2018** e D.R. n. **1616/2018** del **22/06/2018** e composta da:

- Prof. Giacomo Aletti – professore ordinario presso il Dipartimento di Scienze e Politiche Ambientali dell'Università degli Studi di Milano;
- Prof. Carlo Sempi – professore ordinario presso il Dipartimento di Matematica e Fisica dell'Università degli Studi del Salento;
- Prof. Barbara Vantaggi – professore associato presso il Dipartimento di Scienze di Base e Applicate per l'Ingegneria dell'Università degli Studi di Roma "La Sapienza"

La Commissione inizia i propri lavori alle ore 10:00.

Il Presidente informa, altresì, che il Dott. Toaldo Bruno ha presentato in data 25/09/2018 dichiarazione di rinuncia alla partecipazione alla presente procedura selettiva.

La Commissione giudicatrice dichiara sotto la propria responsabilità che tra i componenti della Commissione ed i candidati non sussistono rapporti di coniugio, di parentela o di affinità, fino al quarto grado compreso, né altre situazioni di incompatibilità ai sensi degli artt. 51 e 52 del Codice di Procedura Civile e dell'art. 18, primo comma, lett. b) e c), della legge 30 dicembre 2010, n. 240.

I candidati ammessi alla procedura selettiva risultano essere i seguenti:

1. Candellero Elisabetta
2. Cipriani Alessandra
3. Durastanti Claudio

La Commissione, quindi, procede ad esaminare le domande di partecipazione alla procedura presentate da parte dei candidati, con i titoli allegati e le pubblicazioni.

Per ogni candidato, la Commissione verifica che i titoli allegati alla domanda siano stati certificati conformemente al bando.

Procede poi ad elencare analiticamente i titoli e le pubblicazioni trasmesse dal candidato.

Successivamente elenca, per ogni candidato, i titoli e le pubblicazioni valutabili (allegato B).

- 1) Vengono esaminati i titoli e le pubblicazioni del candidato Candellero Elisabetta
- 2) Vengono esaminati i titoli e le pubblicazioni del candidato Cipriani Alessandra
- 3) Vengono esaminati i titoli e le pubblicazioni del candidato Durastanti Claudio

La Commissione termina i propri lavori alle ore 11:30 e si riconvoca per la verifica dei titoli e delle pubblicazioni dei candidati, il giorno 8 Ottobre 2018 alle ore 9:00.

Inoltre La Commissione propone di fissare la data del colloquio con i Candidati il giorno 30 Ottobre 2018 alle ore 15:00.

Letto, confermato e sottoscritto.

Firma del Commissari

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## ALLEGATO B AL VERBALE N. 2

**PROCEDURA SELETTIVA DI CHIAMATA PER N. 1 POSTO DI RICERCATORE A TEMPO DETERMINATO DI TIPOLOGIA B PER IL SETTORE CONCORSUALE 01/A3 - SETTORE SCIENTIFICO-DISCIPLINARE MAT/06 - PRESSO IL DIPARTIMENTO DI SCIENZE DI BASE E APPLICATE PER L'INGEGNERIA DELL'UNIVERSITÀ DEGLI STUDI DI ROMA "LA SAPIENZA" BANDITA CON D.R. N. 3123/2017 DEL 1.12.2017**

TITOLI E PUBBLICAZIONI VALUTABILI

**CANDIDATO: Candellero Elisabetta**

VERIFICA TITOLI VALUTABILI:

1. **Titolo di dottore di ricerca** in MATEMATICA conseguito in data 9/07/2012 presso GRAZ UNIVERSITY OF TECHNOLOGY (Graz, Austria);
2. **Contratti di ricercatore a tempo determinato o equivalente presso atenei stranieri:**  
RICERCATORE A TEMPO DETERMINATO presso UNIVERSITY OF BIRMINGHAM (UK) dal 1/09/2012 al 31/08/2013;  
RICERCATORE A TEMPO DETERMINATO presso UNIVERSITY OF WARWICK (UK) dal 1/09/2013 al 31/08/2015;  
ASSISTANT PROFESSOR A TEMPO DETERMINATO presso UNIVERSITY OF WARWICK (UK) dal 1/09/2015 al 31/08/2018.

### **Organizzazione convegni di carattere scientifico**

30/08-02/09/2016 : Workshop Random processes in discrete structures a Warwick (UK).  
07/2014 Open Problem Workshop a Moreton in Marsh (UK).  
2018: tre seminari TEDxWarwick events a Warwick (UK).  
A.A. 2016/17 e 2015/16 Seminari Midlands Probability Theory a Warwick (UK).

### **Relatore a congressi e convegni nazionali e internazionali**

28/01-03/02/2018 Plenary speaker al workshop Strongly Correlated Random Interacting processes, Oberwolfach (Germania).  
23-27/10/2017 Plenary speaker al workshop Dynamics on random graphs and planar maps, CIRM, Marseille (Francia).  
11-15/09/2017 Plenary speaker al workshop Randomness and graphs: processes and structures, Eurandom, Eindhoven (Olanda).  
26/07-05/08/2017 Plenary speaker a LMS-EPSC Durham Symposium Markov Processes, Mixing Times and Cutoff, University of Durham (UK).  
19-22/06/2017 Invited talk nella sessione Stochastic processes in discrete structures and their limit behaviour, a First Italian Meeting on Probability and Mathematical Statistics, Università di Torino.  
19-24/06/2016 Plenary speaker alla Scuola e Workshop on Random Interacting Systems, University of Bath (UK).  
25-27/03/2016 Plenary speaker all' International conference on Probability Theory and Statistical Physics, New York University Shanghai (Cina).  
18/01/2016 Plenary speaker al workshop Dynamical Networks and Networks Dynamics, ICMS Edinburgh (UK).  
14/12/2015 Plenary speaker a Davis-Warwick Probability Workshop, University of California Davis, -CA-USA.  
18/11/2014 Plenary speaker al Workshop in First Passage Percolation in Cabo Frio, Rio de Janeiro (Brasile).  
10/06/2014 Plenary speaker al terzo Bath-Paris Branching Structures meeting, University of Bath (UK).  
3/06/2014 Invited talk alla conferenza in honor of Wolfgang Woess' 60<sup>th</sup> birthday: "Groups, Graphs, and Random Walks", Cortona.  
16/04/2014 Plenary speaker al workshop New Frontiers in Random Geometric Graphs, Lorentz Center, Leiden (Olanda).  
20/12/2013 Invited speaker al Welcome Home Workshop, Università di Torino.  
26/09/2013 Invited talk alOMG-DMV congress", Università di Innsbruck (Austria).

30/03-07/04/2012 : McGill University, Montreal (Canada).  
15-30/03/2012 : University of Michigan, Ann Arbor (USA).  
30/01-15/03/2012 : visiting student at Microsoft Research, Redmond (USA).  
08-12/03/2010 Invited speaker a YEP VII Workshop organizzato da EURANDOM, Eindhoven (Olanda).  
Altri talk:  
29/07/2014 : 37th Conference in Stochastic Processes and their Applications (SPA 2014), University of Buenos Aires (Argentina).  
31/07/2013 : 36th Conference on Stochastic Processes and their Applications (SPA 2013), held at the University of Colorado Boulder, Boulder (USA).  
25/07/2013 : Probability summer School, University of Cornell, Ithaca (USA).  
05/03/2013 : DSSA Workshop (Discrete structures and related methods from stochastic analysis)", held at Technion, Haifa (Israel).  
3-16/07/2011 : 41st Probability Summer School, Saint Flour (France).  
15/04/2016 : Probability and Statistics Seminar, University of Bristol, UK.  
14/01/2016 : Seminar on Discrete Mathematics and Game Theory, London School of Economics, UK.  
11/01/2016 : Mathematical Finance and Stochastic Analysis Seminar, University of York, UK.  
27/01/2014 : Probability Workshops, University of Oxford, UK.  
14/10/2013 : Prob-L@b Seminar, University of Bath, UK.  
18/06/2013 : University of Turin, Turin, Italy.  
21/03/2013 : Selected Topics in Mathematics, University of Liverpool, UK.

**Organizzazione, direzione e coordinamento di gruppi di ricerca nazionali e internazionali, o partecipazione agli stessi - Attività di formazione o di ricerca presso qualificati istituti italiani o stranieri**

2010 Principal Investigator come supporto per i studi di PhD (a DOC-fORTE fellowship) da OAW (Austrian Academy of Sciences) 61,000 Euro.  
3/11/ 2010 Principal Investigator per un Short visit grant da ESF (European Science Foundation) all'interno del progetto Random Geometry of Large Interacting Systems and Statistical Physics (RGLIS) circa 1,000 Euro.  
11/2008 Principal Investigator per un short term research grant (Forschungsstipendium) da Buro fur Forschung und Technologie, TU Graz circa 3,000 Euro.

Partecipazione a gruppi di ricerca

09/2012-08/2013 Hyperbolic Graphs finanziato da Marie Curie Career Integration Grant (project number PCIG09-GA2011-293619) PI Nikolaos Fountoulakis, University of Birmingham (UK)

Visite per motivi di ricerca

01/03-01/04/2016 New York University Shanghai (Cina)  
09-14/11/2014 IMPA, Rio de Janeiro (Brazile)  
14-18/10/2013 Prob-L@b, University of Bath (UK)  
01-06/07/2013 Ludwig-Maximilian Università di Munich, Monaco (Germania)  
30/03-07/04/2012 McGill University, Montreal (Canada)  
15-30/03/2012 Università del Michigan, Ann Arbor (USA)  
30/01-15/03/2012 visiting student a Microsoft Research, Redmond (USA)

**Attività didattica a livello universitario in Italia e/o all'estero (con valutazioni)**

A.A. 2017/18 Masters course (attended by PhD students) Dynamic Stochastic Control, Department of Statistics, University of Warwick.  
A.A. 2016/17 Masters course (attended by PhD students) Dynamic Stochastic Control, Department of Statistics, University of Warwick.  
A.A. 2015/16 Masters course (attended by PhD students) Dynamic Stochastic Control, Department of Statistics, University of Warwick.  
A.A. 2017/18 Organizzazione per PhD students del Probability Reading Group on Processes with reinforcement (term 2) e First-passage percolation" (term 1).  
A.A. 2016/17 Organizzazione per PhD students di due Probability Reading Groups su Random Interlacements e Random Maps.  
A.A. 2015/16 Organizzazione per PhD students di Probability Reading Group su Percolation and Unimodularity (Warwick).  
A.A. 2014/15 : A module as part of the masters course Advanced Topics in Statistics, Department of Statistics, University of Warwick.

Winter term 2012 : Tutorials for first-year mathematicians at the University of Birmingham.

10/2009-01/2012 : Mathematical tutorials/exercises for first-year Engineering students at Graz University of Technology.

Teaching specific for graduate (PhD) students:

A.A. 2017/18 : Organizzazione di Probability Reading Group su Processes with reinforcement (term 2) e First-passage percolation (term 1).

A.A. 2016/17 : Organizzazione di due Probability Reading Groups su Percolation and Unimodularity, Random Interlacements e Random Maps.

A.A. 2015/16 : Organizzazione di Probability Reading Group su Percolation and Unimodularity (Warwick).

08/2013 Exercise sessions (tutorials) durante la summer school for postgraduate students Random Graphs, Geometry and Asymptotic Structure, organizzata all'Università di Birmingham.

A.A. 2017/18 : Project leader of a Research Study Group for first-year PhD students in Warwick (joint program between Mathematics and Statistics). Topic: the Frog Model.

A.A. 2016/17 : Supervision of a 4th-year (masters) thesis on the topic Random walk in random environment.

### Ulteriori titoli come presentati dalla Candidata

Departmental meeting (equivalent to Collegio docenti):Academic year 2017/18: I have participated in the 2 departmental meetings (equivalent to the Italian Collegio Docenti) taking place in September 2017 and January 2018.The next one will be in April 2018.

Academic year 2016/17: I have participated in the 3 departmental meetings (equivalent to the Italian Collegio Docenti) that took place in September 2016, January 2017 and April 2017.Academic year 2015/16: I have participated in the 3 departmental meetings (equivalent to the Italian Collegio Docenti) that took place in September 2015, January 2016 and April 2016.

9-13/04/2018 : Invited talk al workshop UK Easter Probability meeting, University of Sheffield (UK).

6-10/02/2018 : Plenary speaker at the Rhein-Main Kolloquium Stochastik", joint Kolloquium organizzato da TU Darmstadt & Goethe-Università (Frankfurt) & Gutenberg-Università (Mainz).

20-24/02/2018 Università di Tours (Francia)

1. Academic year 2017/18 :

(i) I am mentoring 27 students (tutees), 10 of which are first-year students. I mark some of their assignments and give them feedback. I meet all of them individually at least twice a term, to discuss their progress and course choices. Furthermore, I am required to write reference letters for their applications to internships, or postgraduate studies.

(ii) I am organizing the Probability reading group on the topic "Processes with reinforcement", and I organized already one on the topic "First passage percolation".

(iii) I have participated in several panels to evaluate the progress of PhD students in the department: I read their reports, give them feedback, and evaluate their corresponding presentations.

(iv) I am part of the "Publicity group" (as responsible for the PhD departmental webpage and for the general outreach of PhD courses). I am also coordinating with the local organizers to put together four TEDx events, which will take place at Warwick in the next few months.

(v) I am the academic correspondent for the departmental newsletter.

2. Academic year 2016/17 :

(i) I mentored 24 students (tutees), 10 of which were first-year students. I mark some of their assignments and give them feedback. I meet all of them individually at least twice a term, to discuss their progress and course choices. I am also required to write reference letters for their applications to internships, or postgraduate studies.

(ii) I organized the Midlands Probability Theory Seminar (Warwick).

(iii) I organized two Probability Reading group on the topics "Random Interlacements" and "Random Maps".

(iv) I have participated in several panels to evaluate the progress of PhD students in the department: I read their reports, give them feedback, and evaluate their corresponding presentations.

(v) I was part of the "Publicity group" (responsible for the PhD departmental webpage).

(vi) I was part of the Welfare and Communication Committee.

(vii) I was the academic correspondent for the departmental newsletter.

3. Academic year 2015/16 :

(i) I was mentoring 20 students (tutees), 5 of which were first-year students. I mark some of their assignments and give them feedback. I meet all of them individually at least twice a term, to discuss their progress and course choices. I am also required to write reference letters for their applications to internships, or postgraduate studies.

(ii) I organized the Midlands Probability Theory Seminar (Warwick).

(iii) I organized the Probability reading group on the topic "Percolation and Unimodularity".

La Candidata riporta gli indici bibliometrici relative alla sua produzione.

La Commissione ritiene ammissibili tutti i titoli sopra elencati presentati dalla Candidata.

La Candidata ha fornito 4 nomi di studiosi che possono riferire sulla sua attività scientifica.

#### VERIFICA PUBBLICAZIONI VALUTABILI

1. Elisabetta Candellero and Wilfrid S. Kendall, Coupling of Brownian motions in Banach spaces (2017). Accepted for publication in Electronic Communications in Probability. Preprint at: Arxiv.org/abs/1705.08300.
2. Elisabetta Candellero and Augusto Teixeira, Percolation and isoperimetry on roughly transitive graphs. Accepted for publication in the Annales de l'Institut Henri Poincaré (B) Probability and Statistics. Preprint at: Arxiv.org/abs/1507.07765.
3. Elisabetta Candellero, Shirshendu Ganguly, Christopher Hoffman, and Lionel Levine, Oil and water: a two-type internal aggregation model, (2016). Accepted for publication in the Annals of Probability. Preprint available at Arxiv.org/abs/1408.0776.
4. Elisabetta Candellero and Nikolaos Fountoulakis, Bootstrap percolation and the geometry of complex networks, Stochastic Processes and their Applications 126, pp. 234-264 (2016).
5. Elisabetta Candellero and Nikolaos Fountoulakis, Clustering and the hyperbolic geometry of complex networks, Internet Mathematics Vol. 12, no. 1-2, pp. 2-53 (2016).
6. Elisabetta Candellero and Matthew Roberts, The number of ends of critical branching random walks, Latin American Journal of Probability and Mathematical Statistics (ALEA), 12 (1), pp. 55-67 (2015).
7. Elisabetta Candellero and Nikolaos Fountoulakis, Clustering and the hyperbolic geometry of complex networks, (extended abstract) Proceedings of the 11th International Workshop on Algorithms and Models for the Web graph (WAW'14) (A. Bonato et al. Eds.), LNCS 8882, pp. 1-12 (2014).
8. Elisabetta Candellero, Lorenz Gilch and Sebastian Muller, Branching Random Walks on Free Products of Groups, Proceedings of the London Mathematical Society, Vol. 104, Issue 6, pp. 1085-1120, 2012.
9. Elisabetta Candellero and Lorenz Gilch, Phase Transitions for RandomWalk Asymptotics on Free Products of Groups, Random Structures & Algorithms, Vol. 40, Issue 2, pp. 150-181, 2012.

#### TESI DI DOTTORATO

10. Elisabetta Candellero, Limit behaviors for random walks and branching random walks on some products of groups, PhD thesis, TU Graz, (2012).

La Commissione all'unanimità ritiene valutabili tutte le pubblicazioni presentate.

#### CONSISTENZA COMPLESSIVA DELLA PRODUZIONE SCIENTIFICA:

Il candidato presenta una produzione complessiva pari a N. 10 pubblicazioni

#### **CANDIDATO: CIPRIANI ALESSANDRA**

#### VERIFICA TITOLI VALUTABILI:

1. **Titolo di dottore di ricerca** in MATEMATICA conseguito in data 29-8-14 presso l'Università di Zurigo;
2. **Contratti di ricercatore a tempo determinato o equivalente presso atenei stranieri:**  
Wissenschaftliche Mitarbeiterin presso Wias Berlin dal 4-1-2014 al 30-11-2016  
Research Associate presso University of Bath dal 1-12-2016 al 14-1-2018  
Assistant Professor presso University of TU Delft dal 01/2018

#### **Premi e Riconoscimenti**

2007 Premio AILA 3+2

#### **Organizzazione convegni di carattere scientifico**

Member of the organizing committee of the "VI PhD Student Conference in Stochastic", 30th September-2nd October 2010, Zurich, Switzerland.

Member of the organizing committee of the "Workshop: Extrema of Branching Processes and Gaussian Fields", 28th-29th November 2014, Berlin, Germany.

Member of the organizing committee of the workshop “Junior Female Researchers in Probability”, 22nd-23rd October 2015, Berlin, Germany.

### **Relatore a congressi e convegni nazionali e internazionali**

09/2009 *Quantum spin systems: a dynamical approach*, IRTG Summer School, Chorin, Germany.  
04/2010 *Correlation inequalities for quantum spin systems with a transverse field*, IRTG Seminar, Berlin, Germany.  
12/2010 *What is... a random polymer?* ETH Zurich, Switzerland.  
06/2011 *Pinning problem for the membrane model*, Seminario dottorato, Università di Padova.  
01/2013 *Fluctuations near the limit shape of Young diagrams under a conservative measure*, YEP X, Eurandom, Eindhoven, The Netherlands.  
09/2013 *Thick points for a Gaussian Free Field in 4 dimensions*, Zurich-Berlin summer school, Zurich, Switzerland. 10/2013 Seminario dottorato, Università di Padova.  
10/2013 “Stochastics processes in physics and biology”, TU Berlin, Germany.  
03/2014 *High points for a discrete and a continuum random interface*, GSPD, Ulm, Germany.  
05/2014 *Pinning problem for the membrane model*, Seminar “Stochastics processes in physics and biology”, Berlin, Germany.  
06/2014 *Thick points for generalized Gaussian fields with different cut-offs*, School and Workshop on Interacting Random Systems, Bath, UK.  
03/2015 *Rates of convergence for extremes of geometric random variables and marked point processes*, Università di Milano Bicocca.  
04/2015 *Thick points for generalized Gaussian fields with different cut-offs*, ISI Kolkata, India.  
06/2015 *Extremes of the supercritical Gaussian Free Field*, Delft, The Netherlands. 06/2015 Leiden, The Netherlands. 07/2015 Workshop “Women in Probability”, Munich, Germany.  
07/2015 *Rates of convergence for extremes of geometric random variables and marked point processes*, Workshop “Interplay of Analysis and Probability in Applied Mathematics”, Oberwolfach, Germany.  
05/2015 Popularization talk for students: “Perkolation, ein Spiel von zufälligen Pflasterungen” (in German) at the *Tag der Mathematik*, Berlin, Germany.  
01/2016 *Extremes of some Gaussian random interfaces*, Eurandom, Eindhoven, The Netherlands.  
03/2016 Popularization talk for students: “Das Teilungsproblem” (in German) at the *MathInside*, Berlin, Germany.  
09/2016 *The membrane model*, Utrecht, The Netherlands. 09/2016 MPI Leipzig, Germany.  
12/2016 *Scaling limit of the odometer in the divisible sandpile*, Berlin-Oxford meeting, University of Oxford, UK.  
03/2017 *Pinning for the membrane model in higher dimensions*, Midlands Probability Theory Seminars, University of Warwick, UK. 03/2017 Université Paris Est Créteil, France. 03/2017 University of Manchester, UK. 04/2017 LabEx CEMPI Lille, France.  
04/2017 *Scaling limit of the odometer in the divisible sandpile*, London Probability Seminar, University College London, UK. 05/2017 Pure Mathematics Colloquium, University of Lancaster, UK.  
05/2017 *Pinning for the membrane model*, Probability Seminar, University of Lancaster, UK.  
06/2017 Approximating conditional distributions, MIPS, Leiden, The Netherlands. First Italian Meeting on Probability and Mathematical Statistics, Torino. 09/2017 Dauphine’s seminar of analysis and probability, Université Paris Dauphine, France.  
10/2017 Cambridge probability seminar, University of Cambridge, UK.

### **Organizzazione, direzione e coordinamento di gruppi di ricerca nazionali e internazionali, o partecipazione agli stessi - Attività di formazione o di ricerca presso qualificati istituti italiani o stranieri**

PI: Forschungskredit of the University of Zurich, 1st July 2012 - 31st April 2013. 45,000 CHF  
“DFG Wissenschaftliches Netzwerk Kumulanten, Konzentration und Superkonzentration”,  
www.kumulanten.uni-osnabrueck.de, July 2016-July 2019. 39,000 Euro

Visite per motivi di ricerca

Technion, Haifa, Israel, under the supervision of Prof. D. Ioffe, 1st - 31st March 2010;

TU Berlin, Berlin, Germany, under the supervision of Prof. J. - D. Deuschel, 20th April- 1st July 2010;

Fields Institute, Toronto, Canada, under the supervision of Prof. E. Bolthausen, 2nd-19th February 2011;

TU Berlin, Berlin, Germany, under the supervision of Prof. N. Kurt, 27th June-2nd July 2011;

University of Bielefeld, Germany, visiting Dr. D. Zeindler, 17th - 21st June 2013;

ISI Kolkata, India, visiting Prof. R. S. Hazra, 4th - 14th April 2015;

TU Delft, The Netherlands, visiting Dr. W. M. Ruszel, 6th - 19th June 2015, 16th-21st November 2015, 15th-22nd January 2016;

University of Lancaster, UK, visiting Dr. D. Zeindler, 18th - 22nd July 2016;  
Mathematisches Forschungsinstitut Oberwolfach, Research in Pairs program, Oberwolfach, 5th-17th  
February 2017.  
TU Delft, The Netherlands, visiting Dr. W. M. Ruszel, 11th-16th June 2017, 2nd-7th July 2017.

### **Attività didattica a livello universitario in Italia e/o all'estero**

PhD student co-supervision

- Assistant supervision (main supervisor: Rajat Subhra Hazra) of Biltu Dan, ISI Kolkata (since September 2016).
  - Joint supervision (with Frank Redig) of Bart van Ginkel, TU Delft (starting January 2018).
- Übungs- und Arbeitseinteilung der Assistierenden (organisation of teaching assignments for PhD and postdoctoral students), October 2010- September 2013, Institute for Mathematics, University of Zurich.

Mathematik für die Chemie I, MAT 184, Fall semester 2009 and 2010 (in English). Lecturer: Erwin Bolthausen.

Mathematik für die Chemie II, MAT 185, Spring semester 2011 (in English). Lecturer: Erwin Bolthausen.

Logik und Mengenlehre, MAT 004, Fall semester 2011 (in German). Lecturer: Lorenz Halbeisen.

Stochastik, Spring semester 2012 (in German). Lecturer: Erwin Bolthausen.

Grundbegriffe der Mathematik, MAT 151, and Zahlentheorie, MAT 153, Spring semester 2013 (in German).  
Lecturers: Claudia Albertini and Martin Huber.

Lineare Algebra, MA S410, Fall semester 2013 (in German). Lecturer: Johanna Schönenberger-Deuel.

Introduction to the course "Geometric properties of the Gaussian Free Field", Spring semester 2014 (in English). Lecturer: Wendelin Werner.

Introduction to the course "Polynomial Chaos and Scaling Limits of Disordered Systems", for the RTG 1845 Summer school 2015 (in English), September 2015. Lecturer: Francesco Caravenna.

Introductory probability for electrotechnics, February 2018. Lecturer: Mathijs Joosten.

### **Ulteriori titoli come presentati dalla Candidata**

2018 Bernoulli Society member

Poster presentation at the 36th SPA Conference, Boulder, USA, 29th July - 4th August 2013.

Scholarship from INDAM ("Istituto nazionale di alta matematica") for the University of Trento, Italy (declined), July 2004.

La Candidata riporta gli indici bibliometrici relative alla sua produzione.

La Commissione ritiene ammissibili tutti i titoli sopra elencati presentati dalla Candidata.

La Candidata ha inviato 2 lettere di presentazione di studiosi che riferiscono sulla attività scientifica.

### **VERIFICA PUBBLICAZIONI VALUTABILI**

1. Erwin Bolthausen, Alessandra Cipriani, and Noemi Kurt. Exponential decay of covariances for the supercritical membrane model. *Communications in Mathematical Physics*, 353(3):1217-1240, 2017.
2. Alberto Chiarini, Alessandra Cipriani, and Rajat Subhra Hazra. A note on the extremal process of the supercritical gaussian free field. *Electron. Commun. Probab.*, 20(paper n. 74):10 pp., 2015.
3. Alberto Chiarini, Alessandra Cipriani, and Rajat Subhra Hazra. Extremes of some gaussian random interfaces. *Journal of Statistical Physics*, 165(3):521-544, 2016.
4. Alberto Chiarini, Alessandra Cipriani, and Rajat Subhra Hazra. Extremes of the supercritical Gaussian Free Field. *Alea: Latin American Journal of Probability and Mathematical Statistics*, 13:711-724, 2016.
5. Alessandra Cipriani. High points for the membrane model in the critical dimension. *Electron. J. Probab.*, 18(86):1-17, 2013.
6. Alessandra Cipriani and Anne Feidt. Rates of convergence for extremes of geometric random variables and marked point processes. *Extremes*, 19(1):105-138, 2015.
7. Alessandra Cipriani and Rajat Subhra Hazra. Thick points for a gaussian free field in 4 dimensions. *Stochastic Processes and their Applications*, 125(6):2383- 2404, 2015.
8. Alessandra Cipriani and Rajat Subhra Hazra. Thick points for gaussian free fields with different cut-offs. *Ann. Inst. H. Poincaré Probab. Statist.*, 53(1):79-97, 02 2017.
9. Alessandra Cipriani, Rajat Subhra Hazra, and Wioletta M. Ruszel. The divisible sandpile with heavy-tailed variables. *Stochastic Processes and their Applications*, 2017.  
<http://www.sciencedirect.com/science/article/pii/S0304414917302739>.



10. Alessandra Cipriani, Rajat Subhra Hazra, and Wioletta M. Ruszel. Scaling limit of the odometer in divisible sandpiles. *Probability Theory and Related Fields*, Dec 2017. <https://doi.org/10.1007/s00440-017-0821-x>.

11. Alessandra Cipriani and Dirk Zeindler. The limit shape of random permutations with polynomially growing cycle weights. *Latin American Journal of Probability and Mathematical Statistics*, 12(2):971-999, 2015.

#### TESI DI DOTTORATO

12. Alessandra Cipriani. High points of a Gaussian free field and a Gaussian membrane model and limit shape of Young diagrams for random permutations. PhD thesis, University of Zurich, 2014.

La Commissione all'unanimità ritiene valutabili tutte le pubblicazioni presentate.

#### CONSISTENZA COMPLESSIVA DELLA PRODUZIONE SCIENTIFICA:

Il candidato presenta una produzione complessiva pari a N. 12 pubblicazioni

#### CANDIDATO: DURASTANTI CLAUDIO

##### VERIFICA TITOLI VALUTABILI:

1. **Titolo di dottore di ricerca** in MATEMATICA E STATISTICA - Università di Pavia -16/12/2011;
2. **Contratti di ricercatore a tempo determinato o equivalente presso atenei stranieri:**  
Borsa post-dottorato ai sensi dell'art. 4 della legge 30 novembre 1989, n. 398 presso Dipartimento di Matematica - Università di Tor Vergata - Roma dal 01/03/2012 al 30/09/2015;  
Contratti e borse in atenei stranieri in qualità di Postdoc Researcher presso Ruhr-Universität Bochum (Germania) dal 01/10/2015 ad ora.

#### **Organizzazione convegni di carattere scientifico**

2017 Organizer Workshop "Stein's method and Malliavin calculus: recent developments and future perspectives", Bochum, 6-7 December

2013 Co-organizer Workshop "Probabilistic and statistical techniques for cosmological applications, Roma, 5-7 June

#### **Relatore a congressi e convegni nazionali e internazionali**

2/9/2017 Thresholding techniques in nonparametric statistics over the sphere. Ghiffa-Oggebio Summer School.

30/6/2017 Radial 3D-Needlets on the Unit Ball. Conference on "Statistics and Data Science: new challenges, new generations", Florence.

22/6/2017 Stein-Malliavin method meets wavelets: an overview on some recent results. First Italian Meeting on Probability and Mathematical Statistics.

22/9/2016 On high-frequency limits of U-statistics in Besov spaces over compact manifolds. Ghiffa- Oggebio Summer School.

13/07/2016 Adaptive nonparametric estimation on the sphere. 9th World Congress in Probability and Statistics, Toronto.

2/3/2016 Nonparametric regression estimates on the sphere. 12th German Probability and Statistics Days, Bochum.

9/11/2015 Normal approximations of linear and nonlinear statistics over the sphere. Bochum.

6/7/2015 Gaussian approximations for nonlinear statistics on spherical Poisson spaces. European Meeting of Statisticians, Amsterdam.

14/04/2015 Normal approximations of linear and nonlinear statistics over the sphere. Rome.

4/3/2015 Spherical wavelets: an overview and some applications. Rome.

7/12/2014 Gaussian approximations for nonlinear statistics on spherical Poisson spaces. ERCIM conference, Pisa.

4/3/2014 Normal approximations for wavelet coefficients on spherical Poisson fields. 11th German Probability and Statistics Days 2014, Ulm.

13/9/2013 Stein-Malliavin approximations for wavelet coefficients on spherical Poisson fields. Pittsburgh.

9/7/2012 Whittle estimates on the unit sphere. 8th World Congress in Probability and Statistics, Istanbul.

**Organizzazione, direzione e coordinamento di gruppi di ricerca nazionali e internazionali, o partecipazione agli stessi - Attività di formazione o di ricerca presso qualificati istituti italiani o stranieri**

Partecipazione a gruppi di ricerca  
2012-2015 European Research Council 27774 PASCAL  
2015- Research Training Group 2131

Visite per motivi di ricerca  
2016/2017 Tor Vergata, Roma  
2016 Boston University  
2013 Temple University (Philadelphia)  
2013 Carnegie Mellon University (Pittsburgh)

**Attività didattica a livello universitario in Italia e/o all'estero**

2010-2011 Statistics II (tutor) Università dell'Insubria  
2015-2016 Statistics on the sphere (PhD course) Ruhr-Universität Bochum  
2016 Asymptotic statistics (PhD course) Ruhr-Universität Bochum  
2016-2017 Nonparametric statistics (PhD course) Ruhr-Universität Bochum  
2017 Analysis II (tutor) Ruhr-Universität Bochum  
2017-2018 Mathematics III for Engineering (tutor) Ruhr-Universität Bochum  
2017 Supervisione di Nicola Turchi studente Thesis for the Scuola Galileiana di Studi Superiori (Padova)

**Ulteriori titoli come presentati dal Candidato**

Reviewer for

- Journal of Multivariate Analysis;
- Computational Statistics and Data Analysis;
- Electronic Journal of Statistics;
- Statistics and Probability Letters;
- Journal of Approximation Theory;
- Journal of Fourier Analysis and Applications.

Il Candidato riporta collaborazioni con 10 studiosi.

Il Candidato riporta gli indici bibliometrici relative alla sua produzione.

La Commissione ritiene ammissibili tutti i titoli sopra elencati presentati dal Candidato.

**VERIFICA PUBBLICAZIONI VALUTABILI**

1. *Localisation of directional scale-discretised wavelets on the sphere*, with J. McEwen and Y. Wiaux. To appear on Appl. Comput. Harmon. Anal., 44, 1, 59–88 (2018).
2. *On high-frequency limits of U-statistics in Besov spaces over compact manifolds*, with S. Bourguin. To appear on Illinois J. Math. (2018).
3. *On normal approximations for the two-sample problem on multidimensional tori*, with S. Bourguin. To appear on J. Statist. Plann. Inference (2017).
4. *Tail behaviour of Mexican needlets*. J. Math. Anal. Appl. 447, 716–735 (2017).
5. *Adaptive Global Thresholding on the Sphere*. J. Multivariate Anal., 151, 110–132 (2016).
6. *Quantitative central limit theorems for Mexican needlet coefficients on circular Poisson fields*. Stat. Methods Appl., 25,4, 651–673 (2016).
7. *Gaussian approximations of nonlinear statistics on the sphere*, with S. Bourguin, D. Marinucci and G. Peccati. J. Math. Anal. Appl., 436, 2, 1121–1148 (2016).
8. *Block Thresholding on the Sphere*. Sankhya A, 77, 1, 153–185 (2015).
9. *A Simple Proposal for Radial 3D Needlets*, with Y. T. Fantaye, F. K. Hansen, D. Marinucci, and I. Z. Pesenson. Phys. Rev. D 90, 103532 (2014).
10. *Normal Approximations for Wavelet Coefficients on Spherical Poisson Fields*, with D. Marinucci and G. Peccati. J. Math. Anal. Appl., 409, 1, 212–227 (2014).
11. *Gaussian Semiparametric Estimates on the Unit Sphere*, with X. Lan and D. Marinucci. Bernoulli, 20, 28–77 (2014).
12. *Needlet-Whittle Estimates on the Unit Sphere*, with X. Lan and D. Marinucci. Electron. J. Stat., 7, 597–646 (2013).
13. *Adaptive Nonparametric Regression On Spin Fiber Bundles*, with D. Geller and D. Marinucci, J. Multivariate Anal., 104, 1, 16–38 (2013).

14. *Adaptive density estimation on the circle by nearly tight frames*. In “*Novel methods in harmonic analysis with applications to numerical analysis and data processing*”, Vol. 2, 831–860, Birkhäuser/Springer (2017).
15. *U–statistics on the spherical Poisson space*, with S. Bourguin, D. Marinucci and G. Peccati, in “*Stochastic analysis for Poisson point processes: Malliavin calculus, Wiener–Itô chaos expansions and stochastic geometry*”, 295–310, Bocconi & Springer Series, Springer (2016).
16. *High-Frequency Tail Index Estimation by Nearly Tight Frames*, with X. Lan, in “*Commutative and Noncommutative Harmonic Analysis and Applications*”, A.M.S. Contemporary Mathematics Series 603 (2013).

La Commissione all’unanimità ritiene valutabili tutte le pubblicazioni presentate.

**CONSISTENZA COMPLESSIVA DELLA PRODUZIONE SCIENTIFICA:**

Il candidato presenta una produzione complessiva pari a N. 16 pubblicazioni

Letto, confermato e sottoscritto.

Firma del Commissari

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