

# CURRICULUM VITAE

## HWANG Hsien-Kuei

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### EDUCATION

- Bachelor of Science (Mathematics) from National Tsing Hua University (1989)
- DEA (d'Informatique et Mathématiques Appliquées) degree from École Polytechnique (1991–1992)
- Ph.D. (Informatique) from École Polytechnique (1994)

### EMPLOYMENT AND PROFESSIONAL EXPERIENCE

- Since August 2013: Distinguished Research Fellow, Institute of Statistical Science, Academia Sinica
- July 2006–July 2009: Deputy Director of the Institute
- May 2002–July 2013: Research fellow, Institute of Statistical Science, Academia Sinica
- August 2001–December 2002: Deputy Director of the Institute
- October 1998–April 2002: Associate research fellow, Institute of Statistical Science, Academia Sinica
- March 1995–September 1998: Assistant research fellow, Institute of Statistical Science, Academia Sinica

### RESEARCH INTERESTS

Applied Probability, Analysis of Algorithms, Asymptotic Analysis

### AWARDS

- Outstanding Research Award (National Science Council): 1998–1999; 2000–2001; 2002–2004
- Thematic project of Academia Sinica (2002–2004): Phase transitions in random discrete structures and algorithms
- Friedrich Wilhelm Bessel Research Awards of the Alexander von Humboldt Foundation: 2003
- National Science Council Research Fellow: 2005–2007; 2008–2010
- Academia Sinica Investigator Award: 2008–2012, 2015–2019
- National Science Council Distinguished Researcher: 2011
- Franco-Taiwanese Science Foundation Prize: 2013
- Academic Award of the Ministry of Education: 2013
- Simons Visiting Professor, Mathematisches Forschungsinstitut Oberwolfach: 2014
- CHOW Yuan-Shih Lecture Award: 2015

## ACADEMIC VISIT

- 1996** • INRIA (Rocquencourt), April
  - University of the Witwatersrand (Johannesburg), June
- 1997** • Vienna University of Technology (Vienna), July
- 1998** • Purdue University (West Lafayette), July
- 1999** • Graz University of Technology (Graz), July
  - National University of Singapore, August
- 2000–2001** • School of Computer Science, McGill University, August 2000 – July 2001
- 2001** • Vienna University of Technology (Vienna), August
  - University of Freiburg, August
- 2002** • National University of Singapore, January
  - Hong Kong University of Science and Technology, February
  - University of Versailles (Saint Quentin-en-Yvelines), September
- 2003** • Institute of Statistical Mathematics (Tokyo), March
  - TU-Wien (Vienna), June
  - J. W. Goethe-Universität (Frankfurt), July
- 2003–2004** • Institut für Stochastik und Mathematische Informatik, J. W. Goethe-Universität, Frankfurt, August 2003–June 2004
- 2004** • TU-Wien (Vienna), March
  - INRIA-Rocquencourt (Projet ALGO), April
  - J. W. Goethe-Universität, Frankfurt, August–September
- 2005** • J. W. Goethe-Universität, Frankfurt, March
  - École polytechnique, June
  - Uppsala University, August
  - J. W. Goethe-Universität, Frankfurt, August
- 2006** • Université Paris-Nord, July
- 2007** • TU Wien, November
  - J. W. Goethe-Universität, Frankfurt, December
  - Paris-Nord, December
- 2008** • Hong Kong University of Science and Technology, June–July
  - National University of Singapore, November
  - Laboratoire d’Informatique de Paris-Nord and Laboratoire d’Informatique de Paris 6, November
- 2009** • Institut Mittag-Leffler (Djursholm), January
  - National University of Singapore, April
  - Laboratoire d’Informatique de Paris 6, June and September
  - J. W. Goethe-Universität, Frankfurt, September
- 2010** • Institute of Statistical Mathematics, Tokyo, Japan, February
  - J. W. Goethe-Universität, Frankfurt, July and October
  - Technische Universität Berlin, Berlin, July
  - Keio University, September
  - TU Wien, October
  - Laboratoire d’Informatique de Paris 6, September
- 2011** • INRIA, Rocquencourt, February
  - J. W. Goethe-Universität, Frankfurt, April
  - National University of Singapore, May
  - Stellenbosch University, August
  - Institute of Statistical Mathematics, Tokyo, October
  - Laboratoire d’Informatique de Paris-Nord, Université Paris-Nord, December

- 2012**
- Université Paris-Nord, January
  - Institute of Statistical Mathematics, Tokyo, June–August
  - J. W. Goethe-Universität, Frankfurt, October
  - Laboratoire d’Informatique de Paris 6, October
  - National University of Singapore, December
- 2013**
- Institute of Statistical Mathematics, Tokyo, July
  - Université Paris-Nord, September
  - Université Paris-Nord, December
  - Institute of Statistical Mathematics, Tokyo, December
- 2014**
- Technische Universität Graz, January-February
  - Stellenbosch University, February–March
  - Institute of Statistical Mathematics, Tokyo, July–August
  - Chinese University of Hong Kong, October
  - J. W. Goethe-Universität, Frankfurt, October
  - Université Paris-Nord, December
- 2015**
- Queen Mary University of London, February
  - Institute of Mathematical Statistics, Tokyo, April
  - Laboratoire d’Informatique de Paris 6, May
  - Alpen-Adria-Universität Klagenfurt, June
  - Technische Universität Wien, June
  - Université Lille 1, November
  - Laboratoire d’Informatique de Paris 6 & Laboratoire d’Informatique de Paris-Nord, November
- 2016**
- Institute of Mathematical Statistics, Tokyo, March
  - Technische Universität Graz & Technische Universität Wien, July
  - Institute of Mathematical Statistics, Tokyo, July-August
  - Laboratoire d’Informatique de Paris 6 & Laboratoire d’Informatique de Paris-Nord, September
  - Carleton University, October
  - Université de Caen Normandie, December
  - Shanghai Jiaotong University, Shanghai, December
- 2017**
- Laboratoire d’Informatique de Paris Nord, January
  - Institut für Stochastik und Mathematische Informatik, J. W. Goethe-Universität, Frankfurt, May
  - Laboratoire d’Informatique de Paris 6, May
  - Technische Universität Wien & Erwin Schrödinger International Institute for Mathematics and Physics, October
  - Dalian University of Technology, November
  - Institute of Mathematical Statistics, Tokyo, December
- 2018**
- Laboratoire d’Informatique de Paris 6, January & September
  - University of New South Wales, February
  - Waseda University, Tokyo, March
  - Dalian University of Technology, May
  - Northeast University at Qinhuangdao, May
  - Qufu Normal University, May
  - Technische Universität Wien, June & October
  - Technische Universität Graz, July & October
  - IRMA, L’Université de Strasbourg, September
  - Uppsala University, November
- 2019**
- Institute of Mathematical Statistics, Tokyo, March & April
  - Technische Universität Wien, May
  - Université de Caen Normandie, August & September

- Laboratoire d'Informatique de Paris-Nord, September
- J. W. Goethe-Universität, Frankfurt, October
- Technical University of Denmark, November
- Waseda University, December

## CONFERENCE PRESENTATIONS

- 1997**
- Average-Case Analysis of Algorithms (Dagstuhl), July
  - Random Structures and Algorithms (Poznań), August
- 1998**
- Average-Case Analysis of Algorithms (Princeton University), July
  - The 10th Franco-Japanese and 5th Franco-Chinese International Workshop on Combinatorics and Computer Science (École Polytechnique), September
- 1999**
- Average-Case Analysis of Algorithms (Barcelona), June
  - Random Structures and Algorithms (Poznań), August
- 2000**
- Average-Case Analysis of Algorithms (Gdańsk), July
- 2001**
- Average-Case Analysis of Algorithms (Tatihou), July (*plenary speaker*)
  - Random Structures and Algorithms (Poznań), August
- 2002**
- Analysis of Algorithms (Strobl), June
  - Algorithms and Asymptotics (Graz), July
  - Workshop on Probability with Applications to Finance and Insurance (Hong Kong) July
  - Colloquium on Mathematics and Computer Science: Algorithms, Trees, Combinatorics and Probabilities (Versailles), September
- 2003**
- ISM Symposium on Statistics, Combinatorics and Geometry (ISM, Tokyo), March
  - The Ninth Seminar on Analysis of Algorithms (San Miniato), June
  - East-Asian Pacific Regional Conference (Bernoulli Society, Hong Kong), December
- 2004**
- The Tenth Seminar on Analysis of Algorithms (MSRI, Berkeley), June
  - Mini-Workshop on Probability Theory on Trees and Analysis of Algorithms (Oberwolfach), August
  - Third Colloquium on Mathematics and Computer Science: Algorithms, Trees, Combinatorics and Probabilities (Vienna) September (*plenary speaker*)
  - Probabilistic Analysis of Algorithms (ISM, Tokyo), November
- 2005**
- Mini-Workshop on Recursive Distributional Equations (J.W. Goethe Universität, Frankfurt) March
  - The 2005 International Conference on the Analysis of Algorithms, Barcelona, June
  - The 12th International Conference on Random Structures and Algorithms, Poznań, August
- 2006**
- Conference on Probability and Statistics (ISI, Calcutta) January 4–6
  - NCTS January Workshop on Critical Phenomena and Complex Systems (Institute of Physics, Academia Sinica, Taipei) January 12–14
  - The 9th International Conference on Probability Theory and Mathematical Statistics (Vilnius) June 26–30
  - Analysis of Algorithms 2006 (Alden-Biesen, Belgium), July 2–7 (*plenary speaker*)
  - Workshop on Probabilistic Methods in Combinatorics (Mariatrost, Graz) July 20–22
- 2008**
- International Conference on the Analysis of Algorithms (Maresias) April 12–18
  - The Seventh World Congress in Probability and Statistics (National University of Singapore) July 14–19
  - AMS Fall Western Section Meeting, Special Session on Algorithmic Probability and Combinatorics (UBC, Vancouver) October 4–5
  - Joint NUS-ISI Workshop on Recent Advances in Statistics and Probability (National University

- of Singapore) November 18–19
- Colloquium for Philippe Flajolet’s 60th Birthday (École Normale Supérieure, Paris) December 1–2
- 2009**
- Program in Discrete Probability, Mittag-Leffler Institute
  - 2009 NCTS March Workshop on Critical Phenomena and Complex Systems (Taipei), March 28–30
  - Summer School in Applied Probability; four lectures, each with 1.5 hours (Carleton University, Ottawa), May 20–21
  - 20th International Conference on Probabilistic, Combinatorial, and Asymptotic Methods in the Analysis of Algorithms (Fréjus), June 14–19
  - The First Seminar in Applied Probability and Statistics (Northeast Normal University, Changchun), July 21
  - Conference on Probabilistic Techniques in Computer Science (Barcelona), September 14–18
- 2010**
- ISM Symposium on Stochastic Models and Discrete Geometry (ISM, Tokyo), March 1–2
  - Probability Approximations and Beyond: A conference in honour of Louis Chen on his 70th birthday (Singapore), June 25–26
  - The 10th International Vilnius Conference on Probability and Mathematical Statistics (Vilnius), June 28–July 2
  - The 34th Conference on Stochastic Processes and Their Applications (Senri-Chuo, Osaka), September 6–10
- 2011**
- ALEA, Luminy (Marseille), March 7–11
  - Mini-Workshop: Random Trees, Information and Algorithms (Oberwolfach), April 25–29 (two talks)
  - International Conference on Designs, Matrices and Enumerative Combinatorics, May 19–22 (*plenary speaker*)
  - 22th International Meeting on Probabilistic, Combinatorial, and Asymptotic Methods in the Analysis of Algorithms, Będlewo, Poland, June 12–18 (*plenary speaker*; two talks)
  - Seminar on Stochastic Models and Discrete Geometry (ISM, Tokyo), October 6
  - Philippe Flajolet and Analytic Combinatorics (Conference in the memory of Philippe Flajolet), Paris, December 14–16 (two talks)
- 2012**
- ANALCO 2012, Kyoto, January 16
  - Workshop on Stochastic Models and Computational Algorithms, ISM, Tokyo, July 19
  - Extreme Value Theory and Applications, ISM, Tokyo, July 26–28
  - École d’automne en Analyse d’Algorithmes et Modèles Aléatoires, Mahdia, Tunisia, October 17–20
- 2013**
- ISI-ISM-ISSAS Joint Conference 2013, Taipei, January 31–February 1
  - The 24th International Meeting on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms, Menorca, May 27–31
  - The Sixth International Congress of Chinese Mathematicians, Taipei, July 14–19
  - Seminar on Algorithms and Random Structures, Taipei, November 7
  - Holonomix, Lyon, December 2–3
- 2014**
- 2014 ISI-ISM-ISSAS Joint Meeting, New Delhi, February 20–21
  - The 9th Cross-Strait Conference on Probability and Statistics, Taichung, May 17–18 (*Keynote Speaker*)
  - The 25th International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms, Paris, June 16–20
  - Probability, Trees and Algorithms, Oberwolfach, November 2–8.
- 2015**
- 2015 ISI-ISM-ISSAS Joint Meeting, Tokyo, April 2–4.
  - Theory of Evolutionary Algorithms, Dagstuhl Seminar 15211, May 17–22

- The 26th International Meeting on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms, Strobl, Austria, June 8–12
- The 24th South Taiwan Statistics Conference and 2015 Chinese Institute of Probability and Statistics Annual Meeting, June 27–28
- 2016**
  - 2016 One Day Workshop on Analytic and Enumerative Combinatorics, April 22
  - The 27th International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms, Kraków, Poland, July 4–8 (*plenary speaker*)
  - Workshop “Asymptotic Analysis of Algorithms & Combinatorial Structures”, Paris, September 1–2
  - Workshop in Analytic and Probabilistic Combinatorics, Banff, October 23–28
  - The 10th ICSA International Conference, Shanghai, December 19–22
- 2017**
  - Meeting on Analytic Algorithmics and Combinatorics, Barcelona, January 16–17
  - Journée en l’honneur de Michèle Soria, May 12
  - International Conference on Combinatorics, Taipei, May 19–22 (*plenary speaker*)
  - ALEA in Europe, Vienna, October 9–13 (long talk)
  - Workshop on Enumerative Combinatorics, ESI, Vienna, October 16–20
  - Tutorial and Workshop on Analytic and Enumerative Aspects of Combinatorics, NCTU, October 30–31
- 2018**
  - International Workshop at Waseda University 2018 (IWAWU2018)—Topics in Statistical Inference and Stochastics, Waseda University, March (*keynote speaker*)
  - The 35th Workshop on Combinatorial Mathematics and Computation Theory, Providence University, May 11–12 (*keynote speaker*)
  - Analysis of Algorithms, Uppsala, June 25–29
  - The 12th International Vilnius Conference on Probability Theory and Mathematical Statistics and 2018 IMS Annual Meeting on Probability and Statistics, Vilnius, July 2–6
  - 2018 Workshop on Combinatorics and Graph Theory, August 2–4.
- 2019**
  - Taipei International Workshop on Combinatorics & Graph Theory, February 20–23
  - Analysis of Algorithms, Luminy, June 24–28
  - The Third Workshop on Analytic and Enumerative Aspects of Combinatorics, Caen, August 30–31
  - Probability, Statistics & Matrices, Tachikawa, November 11–12
  - New Developments in Statistics and Its Applications, December 10

## PROFESSIONAL ACTIVITIES

### PROGRAM COMMITTEE MEMBER

- Asian Computing Science Conference, December 11–13, 1995, Pathumthani, Thailand
- The First Workshop on Analytic Algorithmics and Combinatorics (ANALCO04), January 10, 2004, New Orleans, USA
- International Conference on the Analysis of Algorithms, June 6–10, 2005, Barcelona, Spain
- Fourth Colloquium on Mathematics and Computer Science: Algorithms, Trees, Combinatorics and Probabilities, September 18–22, 2006, Nancy, France
- The Fourth Workshop on Analytic Algorithmics and Combinatorics (ANALCO07), January 6, 2007, New Orleans, USA
- 2007 Conference on Analysis of Algorithms (AofA’07) Juan-les-pins, France, June 17–22, 2007
- The Seventh Workshop on Analytic Algorithmics and Combinatorics (ANALCO10), January 16, 2010, Austin, USA

- The Eighth Workshop on Analytic Algorithmics and Combinatorics (ANALCO11), January 22, 2011, San Francisco, USA
- (co-Chair) The Ninth Meeting on Analytic Algorithmics and Combinatorics (ANALCO12), January 16, 2012, Kyoto, Japan
- The 23rd International Meeting on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2012), June 17–22, 2012, Montreal, Canada
- The 25th International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2014), Paris, June 16–20, 2014.
- Meeting on Analytic Algorithmics and Combinatorics (ANALCO16), January 11, 2016, Virginia, USA.
- The 25th International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2016), Kraków, July 4–8, 2016.
- The Genetic and Evolutionary Computation Conference (GECCO) 2018, Kyoto (Japan), July 15–19, 2018
- The 30th international Conference on Formal Power Series and Algebraic Combinatorics, Dartmouth College, Hanover (USA), July 16–20, 2018
- The 28th International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2019), Luminy, 2019.

#### **STEERING COMMITTEE MEMBER**

- Meeting on Analytic Algorithmics and Combinatorics (ANALCO13), January 6, 2013, New Orleans, USA
- Meeting on Analytic Algorithmics and Combinatorics (ANALCO14), January 6, 2014, Portland, USA
- Meeting on Analytic Algorithmics and Combinatorics (ANALCO15), January 5, 2015, San Diego, USA
- Meeting on Analytic Algorithmics and Combinatorics (ANALCO16), January 11, 2016, Virginia, USA
- International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms, 2017–2022

#### **EDITORIAL BOARD**

- Philippe Flajolet’s Collected Papers (Seven Volumes, with B. Salvy, R. Sedgewick, M. Soria, W. Szpankowski, B. Vallée and M. D. Ward)
- Co-Editor of a Special Issue of *Algorithmica* (**66** (4), August, 2013)
- Co-Editor of a Special Issue of *Combinatorics, Probability and Computing* (2016)

#### **PUBLICATIONS OF HSIEN-KUEI HWANG**

##### **Ph.D. Thesis**

[PhD94] *Théorèmes limites pour les structures combinatoires et les fonctions arithmétiques*, Laboratoire d’Informatique, École Polytechnique, December, 1994 (under the supervision of Jean-Marc Steyaert).

## Journal papers

- [1] Asymptotic expansions for the Stirling numbers of the first kind, *Journal of Combinatorial Theory, Series A*, **71** (1995), 343–351 (MR 96k:11019).
- [2] Large deviations for combinatorial distributions. I: central limit theorems, *Annals of Applied Probability*, **6** (1996), 297–319 (MR 97g:60041).
- [3] Asymptotic expansion for the Lebesgue constants of the Walsh system, *Journal of Computational and Applied Mathematics*, **71** (1996), 237–243 (MR 97c:42050).
- [4] Asymptotic behaviour of some infinite products involving prime numbers, *Acta Arithmetica*, **75** (1996), 339–350 (MR 97d:11140); Corrections: *Ibidem* **87** (1999), 391 (MR 1671566).
- [5] Limit theorems for mergesort, *Random Structures and Algorithms*, **8** (1996), 319–336 (MR 99c:68062).
- [6] Optimal algorithms for inserting a random element into a random heap, *IEEE Transactions on Information Theory*, **43** (1997), 784–787 (MR 97m:68040).
- [7] A constant arising from the analysis of algorithms for determining the maximum of a random walk, *Random Structures and Algorithms*, **10** (1997), 333–335 (MR 98i:05007).
- [8] Distribution of integer partitions with large number of summands, *Acta Arithmetica*, **78** (1997), 351–365 (MR 98b:11108).
- [9] (with Y.-N. Yeh) Measures of distinctness for random integer partitions and compositions, *Advances in Applied Mathematics*, **19** (1997), 378–414 (MR 98d:11097).
- [10] Asymptotic estimates of elementary probability distributions, *Studies in Applied Mathematics*, **99** (1997), 393–417 (MR 98e:62027).
- [11] On convergence rates of central limit theorems for combinatorial structures, *European Journal of Combinatorics*, **19** (1998), 329–343 (MR 99c:60014).
- [12] Large deviations of combinatorial distributions II. local limit theorems, *Annals of Applied Probability*, **8** (1998), 163–181 (MR 99i:60056).
- [13] A Poisson \* geometric convolution law for the number of components in unlabelled combinatorial structures, *Combinatorics, Probability and Computing*, **7** (1998), 89–110 (MR 99e:05012).
- [14] (with Z.-D. Bai, C.-C. Chao and W.-Q. Liang) On the variance of the number of maxima in random vectors and its applications, *Annals of Applied Probability*, **8** (1998), 886–895 (MR 99f:60019).
- [15] Sur la répartition des valeurs des fonctions arithmétiques: le nombre de facteurs premiers d'un entier, *Journal of Number Theory*, **69** (1998), 135–152 (MR 99d:11100).
- [16] (with C.-C. Chao and W.-Q. Liang) Expected measure of the union of random rectangles, *Journal of Applied Probability*, **35** (1998), 495–500 (MR 99e:60037).
- [17] Asymptotics of divide-and-conquer recurrences: Batcher's sorting algorithm and a minimum Euclidean matching heuristic, *Algorithmica*, **22** (1998), 529–546 (MR 2000j:68206).
- [18] A Poisson \* negative binomial convolution law for random polynomials over finite fields, *Random Structures and Algorithms*, **13** (1998), 17–47 (MR 99e:11149).



- [19] (with Z.-D. Bai and W.-Q. Liang) Normal approximations of the number of records in geometrically distributed random variables, *Random Structures and Algorithms*, **13** (1998), 319–334 (MR 99k:60051).
- [20] Asymptotic expansions of the mergesort recurrences, *Acta Informatica*, **35** (1998), 911–919 (MR 99i:68025).
- [21] (with W.-M. Chen and G.-H. Chen) The cost distribution of queue-mergesort, optimal mergesorts, and power-of-two rules, *Journal of Algorithms*, **30** (1999), 423–448 (MR 99k:68035).
- [22] Asymptotics of Poisson approximation to random discrete distributions: an analytic approach, *Advances in Applied Probability*, **31** (1999), 448–491 (MR 2000k:60054).
- [23] Distribution of the number of factors in random ordered factorizations of integers, *Journal of Number Theory*, **81** (2000), 61–92 (MR 2001k:11183).
- [24] (with B.-Y. Yang and Y.-N. Yeh) Presorting algorithms: an average-case point of view, *Theoretical Computer Science*, **242** (2000), 29–40 (MR 2001d:68067).
- [25] (with H.-H. Chern and Y.-N. Yeh) Distribution of the number of consecutive records, *Random Structures and Algorithms*, **17** (2000), 169–196 (MR 2002c:60006).
- [26] (with Z.-D. Bai, W.-Q. Liang and T.-H. Tsai) Limit theorems for the number of maxima in random samples from planar regions, *Electronic Journal of Probability*, **6** (2001), Paper 3, 41 pages (MR 2002f:60023).
- [27] (with H.-H. Chern) Transitional behaviors of the average cost of quicksort with median-of- $(2t + 1)$ , *Algorithmica*, **29** (2001), 44–69. (MR 2003k:68044).
- [28] Uniform asymptotics of some Abel sums arising in coding theory, *Theoretical Computer Science*, **263** (2001), 145–158 (MR 2002f:050154).
- [29] Limit theorems for the number of summands in integer partitions, *Journal of Combinatorial Theory, Series A*, **96** (2001), 89–126 (MR 2002f:11138).
- [30] (with H.-H. Chern) Phase changes in random  $m$ -ary search trees and generalized quicksort, *Random Structures and Algorithms*, **19** (2001), 316–358 (MR 2002k:68040).
- [31] (with T.-H. Tsai) Quickselect and the Dickman function, *Combinatorics, Probability and Computing*, **11** (2002), 353–371 (MR 2003g:68031).
- [32] (with F. Hubalek, W. Lew, H. M. Mahmoud and H. Prodinger) A multivariate view of random bucket digital search trees, *Journal of Algorithms*, **44** (2002), 121–158 (MR 2003m:68028).
- [33] (with H.-H. Chern, T.-H. Tsai) An asymptotic theory for Cauchy-Euler differential equations with applications to analysis of algorithms, *Journal of Algorithms*, **44** (2002), 177–225 (MR 2003h:68161).
- [34] (with R. Neininger) Phase change of limit laws in the quicksort recurrence under varying toll functions, *SIAM Journal on Computing*, **31** (2002), 1687–1722 (MR 2003m:68034).
- [35] (with T.-H. Tsai) An asymptotic theory for recurrence relations based on minimization and maximization, *Theoretical Computer Science*, **290** (2003), 1475–1501 (MR 2004b:68197).
- [36] Second phase changes in random  $m$ -ary search trees, and generalized quicksort: convergence rates, *Annals of Probability*, **31:2** (2003), 609–629 (MR 2004b:60065).

- [37] (with W.-M. Chen) Analysis in distribution of two randomized algorithms for finding the maximum in a broadcast communication model, *Journal of Algorithms*, **46**:2 (2003), 140–177 (MR 2004c:90008).
- [38] (with H.-H. Chern) Partial match queries in random quadtrees, *SIAM Journal on Computing*, **32**:4 (2003), 904–915 (MR 2004g:68206).
- [39] (with Z.-D. Bai and T.-H. Tsai) Berry-Esseen bounds for the number of maxima in planar regions, *Electronic Journal of Probability*, **8** (2003), Paper 9, 26 pages (MR 2004f:60019).
- [40] (with W.-M. Chen, T.-H. Tsai) Efficient maxima-finding algorithms for random planar samples, *Discrete Mathematics and Theoretical Computer Science (Electronic)*, **6** (2003), 107–122 (MR 2004i:68225).
- [41] (with P. Grabner) Digital sums and divide-and-conquer recurrences: Fourier expansions and absolute convergence, *Constructive Approximation*, **21**:2 (2005), 149–179 (MR 2005i:11097).
- [42] (with H.-H. Chern) Limit distribution of the number of consecutive records, *Random Structures and Algorithms*, **26**:4 (2005), 404–417 (MR 2006c:60010).
- [43] (with M. Drmota) Bimodality and phase transitions in the profile variance of random binary search trees, *SIAM Journal on Discrete Mathematics*, **19**:1 (2005), 19–45 (MR 2006m:68009).
- [44] (with M. Drmota) Profiles of random trees: Correlation and width of random recursive trees and binary search trees, *Advances in Applied Probability*, **37**:2 (2005), 321–341 (MR 2006a:60012).
- [45] (with Z.-D. Bai, L. Devroye and T.-H. Tsai) Maxima in hypercubes, *Random Structures and Algorithms*, **27**:3 (2005), 290–309 (MR 2006i:60009).
- [46] (with H.-H. Chern) Partial match queries in random  $k$ -d trees, *SIAM Journal on Computing*, **35**:6 (2006), 1440–1466 (MR 2007b:68216).
- [47] (with L. Devroye) Width and mode of the profile for some random trees of logarithmic height, *Annals of Applied Probability*, **16**:2 (2006), 886–918 (MR2007h:60009).
- [48] (with M. Fuchs and R. Neininger) Profiles of random trees: Limit theorems for random recursive trees and binary search trees, *Algorithmica*, **46**:3-4 (2006), 367–407 (MR2008g:05048).
- [49] Profiles of random trees: plane-oriented recursive trees, *Random Structures and Algorithms*, **30**:3 (2007), 380–413. (MR2008d:05138).
- [50] (with H.-H. Chern and M. Fuchs) Phase changes in random point quadtrees, *ACM Transactions on Algorithms*, **3**:2, Article No. 12 (2007), 51 pages (MR 2008i:68023).
- [51] (with S. Janson) Local limit theorems for finite and infinite urn models, *Annals of Probability*, **36**(3) (2008), 992–1022 (MR 2009f:60032).
- [52] (with G. Park, P. Nicodème, W. Szpankowski) Profiles of tries, *SIAM Journal on Computing*, **38**(5) (2009), 1821–1880 (MR 2010h:68243).
- [53] (with V. Zacharovas) A Charlier-Parseval approach to Poisson approximation and its applications, *Lithuanian Mathematical Journal*, **50**(1) (2010), 88–119 (MR 2011g:62034).
- [54] (with M. Fuchs and V. Zacharovas), Asymptotic variance of random digital search trees, *Discrete Mathematics and Theoretical Computer Science (Special issue in honor of Philippe Flajolet)*, **12**(2) (2010), 103–166 (dedicated to the 60th birthday of Philippe Flajolet) (MR 2012b:05232).

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