

Program of the 24th *International Meeting on
Probabilistic, Combinatorial and Asymptotic Methods
for the Analysis of Algorithms*
AofA 2013

May 27-31, 2013, Menorca, Spain

AofA 2013: Program Overview

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---------------|-------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 09:00 - 10:00 | Invited Lecture Panagiotou | Invited Lecture Viola | Invited Lecture Bühmann | Invited Lecture Kang | Invited Lecture Soria |
| 10:00 - 11:00 | Coffee Break Session 1A | Coffee Break Session 2A | Coffee Break Session 3A | Coffee Break Session 4A | Coffee Break Session 5A |
| 11:00 - 12:00 | | | | | |
| 12:00 - 13:00 | Lunch | Lunch | Lunch | Lunch | Lunch |
| 13:00 - 14:00 | | | | | |
| 14:00 - 15:00 | Invited Lecture Grübel | Invited Lecture Lugosi | | Invited Lecture Nicaud | Session 5B |
| 15:00 - 16:00 | Coffee Break Session 1B | Coffee Break Session 2B | Excursion | Coffee Break Session 4B | Closure & Lunch |
| 16:00 - 17:00 | | | | | |
| 17:00 - 18:00 | AC for Masses Sedgewick | Open Problem Session | | Business Meeting | |
| 18:00 - 19:00 | | | | | |
| 19:00 - 20:00 | Dinner | Dinner | | Dinner | Dinner |
| 20:00 - 21:00 | | | | | |

Conference
Banquet

AofA 2013: Detailed Program

SUNDAY, MAY 26

19:00 Welcome Reception

MONDAY, MAY 27

9:00-10:00 Invited Lecture

Going after the k -SAT Threshold
K. Panagiotou (Univ. München, Germany)

10:00-10:30 Coffee Break

10:30-12:00 Session 1A

- 10:30** M.L. Bruner: *Label patterns in mappings*
- 10:50** J. Bouttier: *Counting irreducible maps via substitution and bijections*
- 11:10** B. Salvy: *Implicit species at the basis of Analytic Combinatorics*
- 11:30** M. Kiwi: *Towards the distribution of the size of the largest non-crossing matchings in random bipartite graphs*

12:00-14:00 Lunch

14:00-15:00 Invited Lecture

Combinatorial Markov Chains
R. Grübel (Leibniz Univ. Hannover, Germany)

15:00-15:30 Coffee Break

15:30-17:00 Session 1B

- 15:30** A. Gnedin: *Generalized Erdős-Turán laws for the order of random permutation*
- 15:50** G. Louchard: *Sum of positions of records in random permutations: A precise analysis*
- 16:10** L. Mercier: *The height of the Lyndon tree*
- 16:30** M. Bóna: *Algorithms helping enumeration in pattern avoiding permutations*

17:30-18:30 Special Session: Analytic Combinatorics for the Masses, R. Sedgewick (Princeton, USA)

19:30-20:30 Dinner

TUESDAY, MAY 28

9:00-10:00 Invited Lecture

Fifty Years of Linear Probing Hashing
A. Viola (Univ. de la República, Uruguay)

10:00-10:30 Coffee Break

10:30-11:50 Session 2A

10:30 A. Duch: *Quad-K-d trees*

10:50 M. Nebel: *Average case and distributional analysis of Java 7's dual pivot quick-sort*

11:10 S. Wild: *Analysis of quickselect under Yaroslavskiy's dual-pivoting algorithm*

11:30 W. Szpankowski: *Average redundancy of the Shannon code for Markov sources*

12:00-14:00 Lunch

14:00-15:00 Invited Lecture

Concentration Inequalities and the Entropy Method
G. Lugosi (Univ. Pompeu Fabra, Spain)

15:00-15:30 Coffee Break

15:30-17:20 Session 2B

15:30 J. A. Fill: *Partitions with distinct multiplicities of parts: On an "unsolved problem" posed by Herbert Wilf*

15:50 Z. Gao: *Part sizes of smooth supercritical compositional structures*

16:10 S. Wagner: *Compositions, canonical trees, acyclic digraphs and their common structural properties*

16:30 B. Vallée: *Typical depth of a digital search tree built on a general source*

16:50 H.-K. Hwang: *Periodic oscillations of the variance of trie statistics and related structures*

17:30-18:30 Open Problem Session

19:30-20:30 Dinner

WEDNESDAY, MAY 29

9:00-10:00 Invited Lecture

What is the Information Content of an Algorithm?
J. Buhmann (ETH Zürich, Switzerland)

10:00-10:30 Coffee Break

10:30-12:10 Session 3A

- 10:30** D. Gardy: *Statistics on restricted lambda-terms*
10:50 B. Gittenberger: *Associative and commutative tree representations for Boolean functions*
11:10 C. Heuberger: *Analysis of the binary asymmetric joint sparse form*
11:30 E. De Panafieu: *Phase transition of symmetric inhomogeneous random graphs*
11:50 V. Ravelomanana: *On the probability of planarity of a random graph near the critical point*

12:00-14:00 Lunch

15:00-19:30 Excursion

21:30 Conference Banquet

THURSDAY, MAY 30

9:00-10:00 Invited Lecture

Phase Transitions in Random Discrete Structures
M. Kang (TU Graz, Austria)

10:00-10:30 Coffee Break

10:30-12:00 Session 4A

- 10:30** P. Jacquet: *Green leader election*
10:50 J. Lumbroso: *Some fast Buffon machines*
11:10 M. Wilson: *Diagonal asymptotics for products of combinatorial classes*
11:30 R. Pemantle: *Analytic combinatorics in several variables*

12:00-14:00 Lunch

14:00-15:00 Invited Lecture

Analysis of Algorithms and Language Theory
C. Nicaud (Univ. Marne-la-Vallée, France)

15:00-15:30 Coffee Break

15:30-17:10 Session 4B

- 15:30** M. Kuba: *Analysis of urn models with multiple drawings*
15:50 C. Mailler: *Smoothing equations for large Pólya urns*
16:10 B. Morcrette: *On unbalanced Pólya urns: Analytic combinatorics strikes again*
16:30 R. Neininger: *Pólya urns via the contraction method*
16:50 P. Nicodème: *Why clump analysis helps understanding DNA evolution?*

17:30-18:30 Business Meeting

19:30-20:30 Dinner

FRIDAY, MAY 31

9:00-10:00 Invited Lecture

Combinatorial Systems and Newton Iteration
M. Soria (Univ. Pierre et Marie Curie (Paris 6), France)

10:00-10:30 Coffee Break

10:30-12:00 Session 5A

- 10:30** Y. Baryshnikov: *Persistence homology for brownian bridges*
- 10:50** M. Bradonjic: *Bootstrap percolation on periodic trees*
- 11:10** C. Holmgren: *Bootstrap percolation on Galton-Watson trees*
- 11:30** M. Steele: *When means bound variances: Concentration for recursively determined random values*

12:00-14:00 Lunch

14:00-15:20 Session 5B

- 14:00** M. Drmota: *Coefficients of positive algebraic functions*
- 14:20** S. Janson: *Weighted random staircase tableaux*
- 14:40** H. M. Mahmoud: *Some node degree properties of series-parallel graphs evolving under a stochastic growth model*
- 15:00** M.D. Ward: *Resolution of Thomas Ward's question and Steven Finch's conjecture. Precise asymptotic analysis of an integer sequence motivated by the dynamical Mertens' theorem for quasihyperbolic toral automorphisms*

15:30-16:00 Closure & Farewell

19:30-20:30 Dinner