

12th Scandinavian
Symposium and Workshops
on Algorithm Theory

Bergen, Norway
21-23 June 2010

Schedule of Events

SUNDAY - June 20

Reception Christiesgate 18, open-air terrace, 4th floor.
17:30 – 19:30 Light refreshments served.
Registration available.

MONDAY - June 21

08:30 Registration open.
University of Bergen Student Center.
Parkveien 1.
08:45 – 08:50 Opening announcements.

Contributed Papers Session 1

Session chair: Haim Kaplan

08:50 – 09:15 *Optimal exploration of terrains with obstacles.*
Jurek Czyzowicz, David Ilcinkas,
Arnaud Labourel and Andrzej Pelc.
09:15 – 09:40 *Reconstructing a simple polygon from its angles.*
Yann Disser, Matus Mihalak and
Peter Widmayer.

Invited Talk Sanjeev Arora, Princeton University.
09:45 – 10:45 *Semidefinite programming and approximation algorithms: A survey.*

Coffee Break

10:45 – 11:15 Registration open.
Tourist information agent available.

Contributed Papers Session 2

Session chair: Yngve Villanger

11:15 – 11:40 *Strictly-regular number system and data structures.*
Amr Elmasry, Claus Jensen and

- Jyrki Katajainen.
 11:40 – 12:05 *An $O(\log \log n)$ -competitive binary search tree with optimal worst-case access times.*
 Karim Douieb, Prosenjit Bose,
 Vida Dujmovic and Rolf Fagerberg.
 12:05 – 12:30 *The emergence of sparse spanners and greedy well-separated pair decomposition.*
 Jie Gao and Dengpan Zhou.

Lunch Spisestedet På Høyden, Fosswinckels gt. 18.

Contributed Papers Session 3

Session chair: Magnús Halldórsson

- 14:00 – 14:25 *A bottom-up method and fast algorithms for max independent set.*
 Bourgeois Nicolas, Bruno Escoffier, Vangelis Paschos and Johan M. M. van Rooij.
 14:25 – 14:50 *Capacitated domination faster than $O(2^n)$.*
 Marek Cygan, Marcin Pilipczuk and Jakub Wojtaszczyk.
 14:50 – 15:15 *Isomorphism for graphs of bounded feedback vertex set number.*
 Stefan Kratsch and Pascal Schweitzer.
 15:15 – 15:40 *On feedback vertex set: New measure and new structures.*
 Yixin Cao, Jianer Chen and Yang Liu.

Coffee Break

Contributed Papers Session 4

Session chair: Pinar Heggernes

- 16:10 – 16:35 *Conflict-free coloring made stronger.*
 Elad Horev, Roi Krakovski and Shakhbar Smorodinsky.
 16:35 – 17:00 *Polychromatic coloring for half-planes.*
 Shakhbar Smorodinsky and Yelena Yuditsky.
 17:00 – 17:25 *A $3/2$ -approximation algorithm for multiple depot multiple travelling salesman problem.*
 Zhou Xu and Brian Rodrigues.

Business Meeting University Student Center.

17:45 – 18:15

Evening activities available.

TUESDAY - June 22

- 08:45 – 08:50 Opening announcements.
 University of Bergen Student Center.
 Parkveien 1.

Contributed Papers Session 5

Session chair: Robert Tarjan

- 08:50 – 09:15 *Minimum and maximum against k lies.*
Michael Hoffmann, Jiri Matousek,
Yoshio Okamoto and Philipp Zumstein.
- 09:15 – 09:40 *Feasible and accurate algorithms for covering
semidefinite programs.*
Garud Iyengar, David Phillips and Cliff Stein.

Invited Talk Prabhakar Raghavan, Yahoo! Research Labs.

- 09:45 – 10:45 *The quantitative analysis of user behavior
online – Data, models and algorithms.*

Coffee Break

Contributed Papers Session 6

Session chair: Fedor Fomin

- 11:15 – 11:40 *Systems of linear equations over F_2 and
problems parameterized above average.*
Robert Crowston, Gregory Gutin, Mark
Jones, Eun Jung Kim and Imre Ruzsa.
- 11:40 – 12:05 *Capacitated max-batching with interval
graph compatibilities.*
Tim Nonner.
- 12:05 – 12:30 *A weakly robust PTAS for minimum clique
partition in unit disk graphs.*
Imran Pirwani and Mohammad Salavatipour.

Lunch Spisestedet På Høyden, Fosswinckels gt. 18.

Contributed Papers Session 7

Session chair: Berthold Vöcking

- 14:00 – 14:25 *Representing a functional curve by curves
with fewer peaks.*
Danny Z. Chen, Chao Wang and Haitao Wang.
- 14:25 – 14:50 *Bregman clustering for separable instances.*
Marcel R. Ackermann and Johannes Blömer.
- 14:50 – 15:15 *Improved methods for generating quasi-gray codes.*
Prosenjit Bose, Paz Carmi, Dana Jansens, Anil
Maheshwari, Pat Morin and Michiel Smid.
- 15:15 – 15:40 *The MST of symmetric disk graphs is light.*
A. Karim Abu-Affash, Rom Aschner, Paz
Carmi and Matthew J. Katz.

Coffee Break

Contributed Papers Session 8

Session chair: Fredrik Manne

- 16:00 – 16:25 *Vector bin packing with multiple-choice.*
Boaz Patt-Shamir and Dror Rawitz.
- 16:25 – 16:50 *Bin packing with fixed number of bins revisited.*
Klaus Jansen, Stefan Kratsch, Dániel Marx
and Ildikó Schlotter.
- 16:50 – 17:15 *Cops and robber game without recharging.*
Fedor Fomin, Petr Golovach and
Daniel Lokshtanov.

Conference Dinner

- 17:45 Meet at Bryggen (across harbor-side street from Radisson Royal Hotel).
18:00 Boat departs for conference dinner.
23:50 Boat returns to harbor.

WEDNESDAY - June 23

- 08:45 – 08:50 Opening announcements.
University of Bergen Student Center.
Parkveien 1.

Contributed Papers Session 9

Session chair: Valerie King

- 08:50 – 09:15 *Path schematization for route sketches.*
Daniel Delling, Andreas Gemsa, Thomas Pajor and Martin Noellenburg.
09:15 – 09:40 *Approximation algorithms for free-label maximization.*
Mark de Berg and Dirk H.P. Gerrits.

Invited Talk Dana Randall, Georgia Institute of Technology.

- 09:45 – 10:45 *Phase transitions in sampling algorithms and underlying random structures.*

Coffee Break

Contributed Papers Session 10

Session chair: Kim Larsen

- 11:15 – 11:40 *Polynomial kernels for hard problems on disk graphs.*
Bart Jansen.
11:40 – 12:05 *Faster parameterized algorithms for minor containment.*
Isolde Adler, Frederic Dorn, Fedor V. Fomin, Ignasi Sau and Dimtrios M. Thilikos.
12:05 – 12:30 *Fixed-parameter algorithms for cochromatic number and disjoint rectangle stabbing.*
Pinar Hegghernes, Dieter Kratsch, Daniel Lokshtanov, Venkatesh Raman and Saket Saurabh.

Lunch Spisestedet På Høyden, Fosswinckels gt. 18.

Contributed Papers Session 11

Session chair: Jean Blair

- 14:00 – 14:25 *Dispatching equal-length jobs to parallel machines to maximize throughput.*
David P. Bunde and Michael H. Goldwasser.
14:25 – 14:50 *Online function tracking with generalized*

penalties.

- 14:50 – 15:15 Marcin Bienkowski and Stefan Schmid.
Better bounds on online unit clustering.
- 15:15 – 15:40 Martin R. Ehmsen and Kim S. Larsen.
Online scheduling intervals and t -intervals.
- Unnar Bachmann, Magnús Halldórsson
and Hadas Shachnai.

Coffee Break

Contributed Papers Session 12

Session chair: Matya Katz

- 16:10 – 16:35 *Approximating the maximum 3- and 4-edge-colorable subgraph.*
Marcin Kamiński and Lukasz Kowalik.
- 16:35 – 17:00 *Improved algorithm for degree bounded survivable network design problem.*
Anand Louis and Nisheeth Vishnoi.
- 17:00 – 17:25 *Fast rumor spreading using shortcut edges.*
Erik Demaine and Morteza Zadimoghaddam.

Midsummer's Eve Barbecue

- 19:00 – 19:30 Meet at station at top of
Fløibanen (cable car) in order to walk to
Skomakerdiket for barbecue and fun.
- 24:00 Last return cable car.