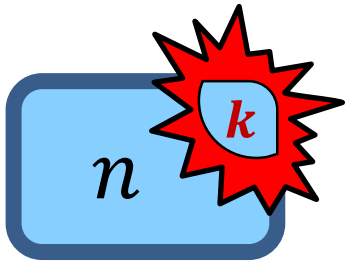
IPEC 2019
Business Meeting

September 12th 2019, Munich



Agenda

1. Update from the steering committee
2. Report by the IPEC 2019 PC chairs
3. IPEC 2019 Awards
4. Information about IPEC 2020 & 2021
5. Report by IPEC publicity chair
6. Community effort to update Wikipedia

IPEC Steering Committee

- Henning Fernau* (chair)
- Daniel Lokshtanov*
- Naomi Nishimura*
- Christophe Paul (2017-2020)
- Michał Pilipczuk (2017-2020)
- Magnus Wahlström (2017-2020)
- Bart Jansen (2018-2021)
- Jan Arne Telle (2018-2021)
- Saket Saurabh (2018-2021)

New members (2019 – 2022):

Marcin Pilipczuk (PC Chair 2020)

Yixin Cao (PC Chair 2020)

Organization of the steering committee

Membership:

- for three years, rotates in September after IPEC
- the two PC chairs of IPEC x+1 join SC after IPEC x
- one additional member is elected by SC each year
- thus SC consists of nine members

How to join:

- might not hurt to express interest in being an IPEC PC chair or SC member
- ultimately the SC decides by nomination plus vote
- soft tradition of being PC chair only once, so afterwards can only join the SC through vote

Regular tasks of the steering committee

Program committee of future IPECs:

- PC chairs for IPEC x+2 are nominated and chosen after IPEC x
- SC does not influence the choice of other PC members

EATCS-IPEC Nerode Prize:

- SC elects new award committee member each year (membership: 3 years)
- SC does not influence the choice of awarded paper

Yes, that is all.

Irregular tasks of the steering committee

Discussing current IPEC matters e.g.

- call for papers, submission guidelines, deadlines
- IPEC proceedings and special issue
- bids for hosting IPEC (usually co-colocated with ESA/ALGO, next year ISAAC)
- interaction with PACE

Discussing plans and ideas to improve future IPECs e.g.

- how to attract more and better submissions
- how to make attending IPEC more attractive

You are welcome to share ideas/concerns with the SC, anytime!

Your ideas and concerns?

Possible topics:

- attracting more and better submissions
- submission of more applied works to IPEC
- making attending IPEC more attractive
  - more special sessions? (tutorial, invited talk, open problems, poster session)
  - adjacent summer school or workshop?
  - accept more papers?!

Again, very welcome to share this during ALGO or via email.

Report by IPEC 2019 Chairs

IPEC 2019
Report by PC chairs

Bart Jansen and Jan Arne Telle

Program Committee

Amir Abboud (IBM Almaden Research Center)
Edouard Bonnet (ENS Lyon)
Jianer Chen (Texas A&M University)
Petr Golovach (University of Bergen)
Bart M. P. Jansen (Eindhoven University of Technology)
Sudeshna Kolay (Ben-Gurion University)
Lukasz Kowalik (University of Warsaw)
O-joung Kwon (Incheon National University)
Daniel Marx (Hungarian Academy of Sciences, MTA SZTAKI)
Kitty Meeks (University of Glasgow)
Yota Otachi (Kumamoto University)
Felix Reidl (Birkbeck University of London)
Christian Schulz (University of Vienna)
Manuel Sorge (University of Warsaw)
Jan Arne Telle (University of Bergen)

- Timeframe: Abstract submission May 29
  Full paper submission June 1
  Notification July 15
  Conference September 11-13

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- Invited talk by Nerode prize winners: Raphael Yuster
- Best Paper and Best Student Paper awards
- Post-proceedings in LIPIcs, special issue in Algorithmica.
  Camera ready deadline: October 6th
  SI invitations sent within the next 10 days

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- PC members were allowed to submit, but their papers were ineligible for the awards.

- This year: no wait for ESA notification

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- 2018: no wait for ESA notification

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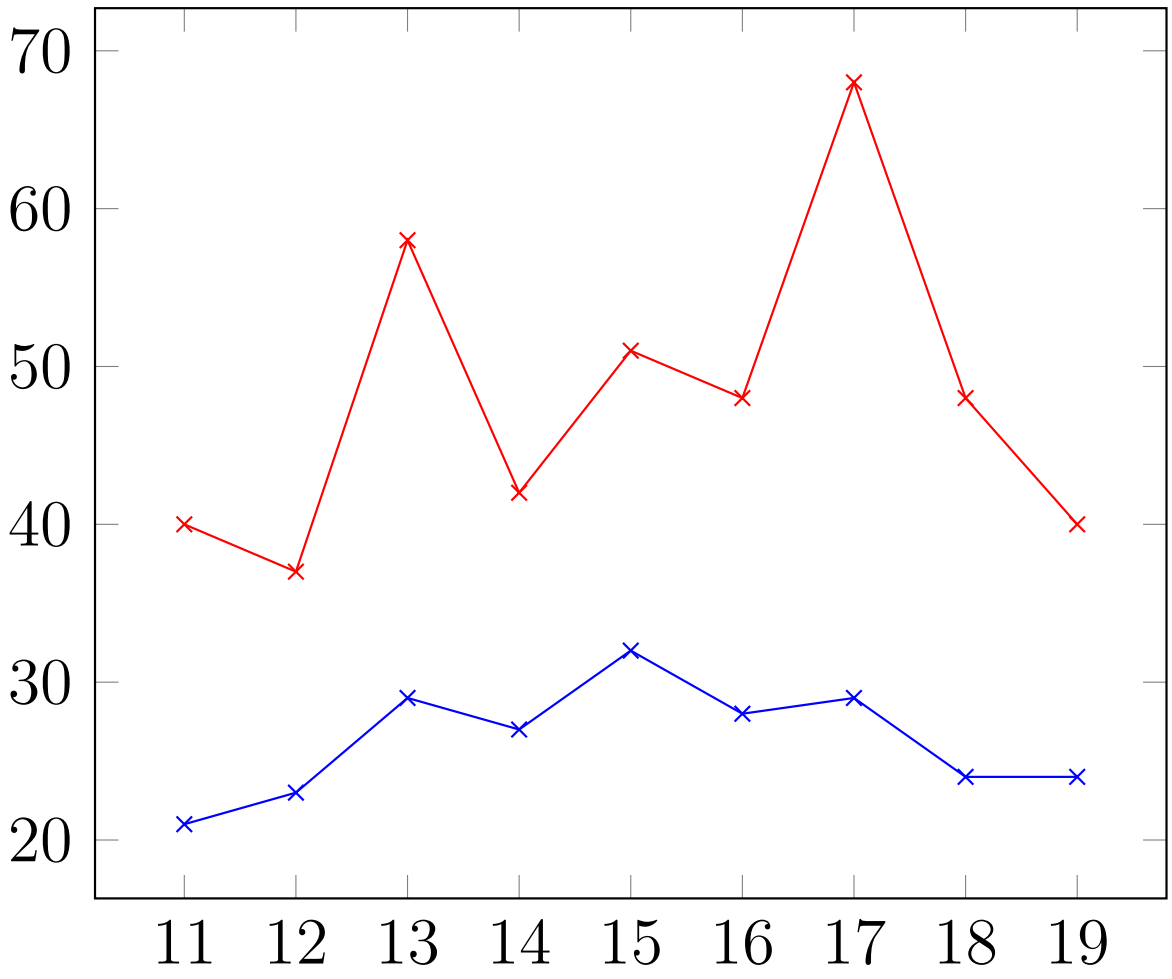
- 2018: no wait for ESA notification
- Earlier years: submission after ESA notification

Submissions and Acceptances last 9 years



Statistics per country

country	authors	submitted	accepted	acceptance rate	PC members
Austria	2	1.50	1.00	0.67	1
Brazil	7	1.90	1.90	1.00	-
Canada	1	1.00	1.00	1.00	-
China	2	1.33	0.00	0.00	-
Czechia	2	0.67	0.67	1.00	-
France	15	4.57	4.07	0.89	1
Germany	23	8.36	5.69	0.68	-
Hungary	2	0.67	0.67	1.00	2
India	6	2.50	0.50	0.20	1
Iran	1	0.25	0.00	0.00	-
Israel	1	0.25	0.25	1.00	-
Italy	5	2.25	1.25	0.56	-
Japan	7	2.50	2.00	0.80	1
Netherlands	1	0.17	0.17	1.00	1
Norway	1	0.50	0.50	1.00	2
Poland	5	1.00	0.67	0.67	2
Romania	1	0.25	0.00	0.00	-
Sweden	1	0.33	0.00	0.00	-
Taiwan	1	0.14	0.14	1.00	-
United Kingdom	3	1.83	1.83	1.00	2
United States	6	3.03	1.70	0.56	2

IPEC 2019 Awards

IPEC 2019
Best Student Paper Award

The 14th International Symposium on Parameterized and Exact Computation

ALGO / IPEC 2019

September 9 – 13, 2019 Munich, Germany

This is to certify that the 2019 IPEC Program Committee has selected the paper

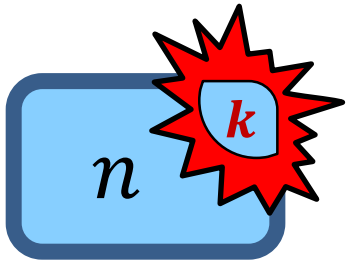
Beating Treewidth for Average-Case Subgraph Isomorphism

by

Gregory Rosenthal
University of Toronto

for the

2019 IPEC Best Student Paper Award



Bart M. P. Jansen, Eindhoven University of Technology

Jan Arne Telle, University of Bergen

2019 IPEC Program Committee Co-chairs

IPEC 2019
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C-Planarity Testing of Embedded Clustered Graphs with Bounded Dual Carving-Width

by

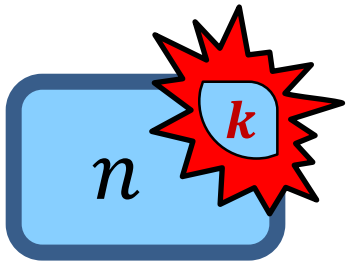
Giordano Da Lozzo, Roma Tre University

David Eppstein, Michael T. Goodrich University of California, Irvine

& Siddharth Gupta Ben-Gurion University of the Negev

for the

2019 IPEC Best Paper Award



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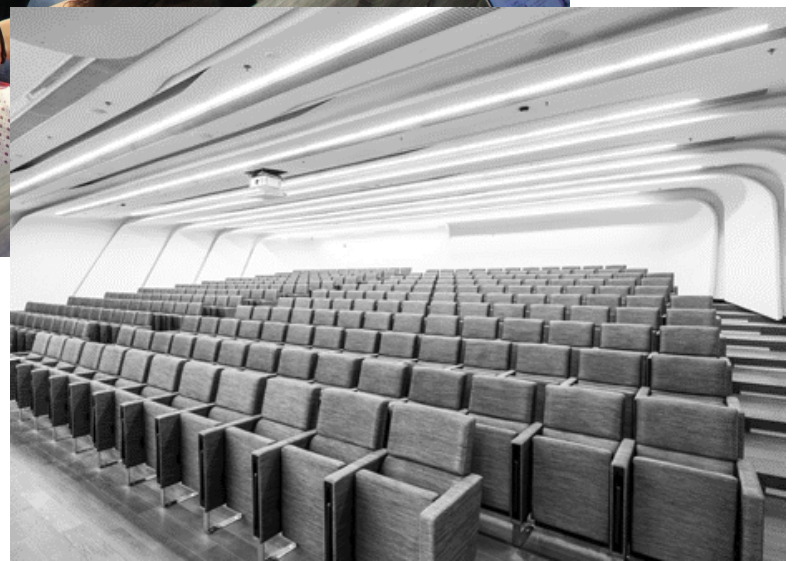
IPEC 2020

The 15th International Symposium on Parameterized and Exact Computation (IPEC 2020)

Hong Kong, China, December 14—16, 2020

Co-located with the 31st International Symposium on Algorithms and Computation (ISAAC 2020)

Slides from Yixin Cao



Venue: Hong Kong Polytechnic University

Accommodation

Hotels (in 10-min walk from the conference site)

- Best Western PLUS Kowloon
- Harbor Plaza Metropolis

Program committee

Marthe Bonamy
CNRS, France

Yixin Cao (co-chair)
Hong Kong Polytechnic University, China

Yijia Chen
Fudan University, China

David Eppstein
UC Irvine, USA

Eun Jung Kim
CNRS, France

Marvin Künnemann
MPII, Germany

Euiwoong Lee
New York University, USA

Pasin Manurangsi
Google Research, USA

Pranabendu Misra
MPII, Germany

Irene Muzi
TU Berlin, Germany

Marcin Pilipczuk (co-chair)
University of Warsaw, Poland

Marc Roth
University of Oxford, UK

R.B. Sandeep
IIT Dharwad, India

Darren Strash
Hamilton College, USA

Tutorial

Yoichi Iwata
National Institute of Informatics, Japan

Important dates (tentative)

- Submission: July 15, 2020
- Notification: September 18th, 2020
- Camera-ready: September 30, 2020

- Conference: December 14—16, 2020

IPEC 2021

IPEC 2021

- PC chairs will be decided by the SC in the coming months
- ALGO will be in Lisbon in 2021
- IPEC will most likely be co-located with ALGO in 2021

IPEC/Parameterized Complexity Publicity Report

Frances Rosamond
Department of Informatics
University of Bergen

Frances.Rosamond@uib.no

Parameterized Complexity Publicity Channels

1. **Wiki** (fpt.wikidot.com)
   Publications Books Awards Jobs Teaching Schools/Workshops

2. **Parameterized Complexity Newsletter**
This is sent via email and also put on the wiki. The *Newsletter* has an ISSN 2203-109X number.
There are approximately 2000 members on the newsletter mailing list.

3. **PACE** (https://pacechallenge.org)

4. **Facebook** Mike Fellows-- FPT Multivariate Algorithmics
https://www.facebook.com/MikeFellowsFPT/

5. Parameterized Complexity **youtube channel**

6. **Wikipedia.org**

www.fpt.wikidot.com Publications – Awards – Jobs – Teaching - Schools

Thank you to **Bart Jansen** for "Recent Papers: FPT Papers at Conferences" and "FPT Papers online."

ICALP A	11	83
ICALP B	2	31
WG	10	24
WADS	5	42
CSR	6	31
SOFSEM	7	35
STACS	10	54
SODA	9	183
ESA	11	83
	71	577
		ABOUT 8%

About 120 papers on arXiv

APPLICATION AREAS:
Access Control ACM SACMAT FPT-Best Paper Awards
Computational Social Choice COMSOC FPT foundational papers
Cognitive Science Cognitive Science Society, Machine Learning, Psychology

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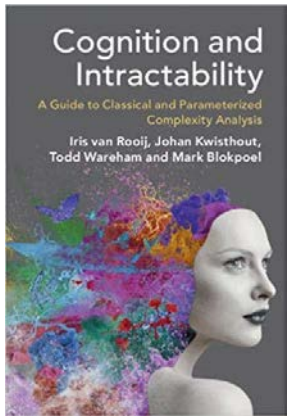

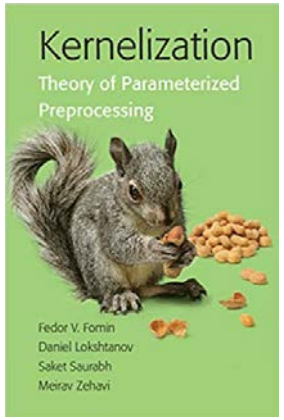

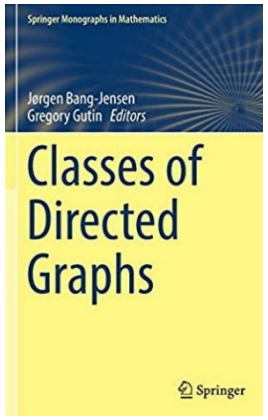

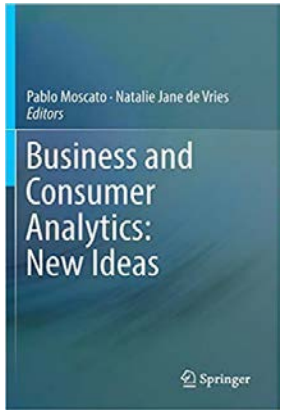

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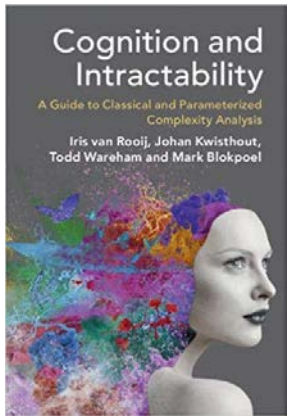
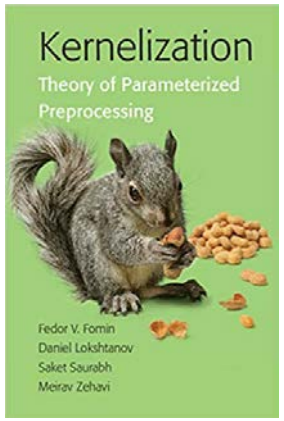
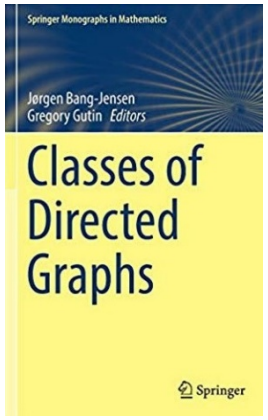
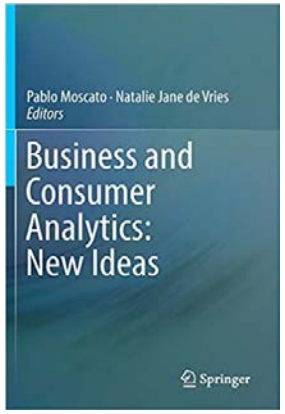
About 120 papers on arXiv

"New Frontiers in Parameterized Complexity and Algorithms"
special issue of *Algorithms* Submissions due: **30 September 2019**.
Guest Editor
Prof. Dr. Frances Rosamond, University of Bergen, Norway
Co-Guest Editors
Dr. Neeldhara Misra, Department of Computer Science and Engineering, Indian Institute of Technology Gandhinagar, India
Dr. Meirav Zehavi, Department of Computer Science, Ben-Gurion University, Israel









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Parameterized Algorithms and Computational Experiments Challenge: PACE Uniting FPT and Practice

https://pacechallenge. org

PACE helps publicize PC via interest by other competitions (SAT) and benchmarks.

PACE started in 2016 . PACE has been an inspiration in many papers, both experiments and theory, including best paper awards.

Sponsors:

Szymon Wasik hosts the competition at optil.io .

Prize money and travel grants were given through the generosity of Networks an NWO Gravitation project of the University of Amsterdam, Eindhoven University of Technology, Leiden University, and the Center for Mathematics and Computer Science (CWI).

The *Parameterized Complexity Newsletter*
Editors: Frances Rosamond, Valia Mitsou, Benjamin Bergougnoux.
Reporter: Emmanuel Sam.

Your help is needed. SEND NEWS:

- Short research articles that highlight new directions, interesting open problems.
- Workshops/conference announcements and reports
- Names of graduates/title of thesis/advisor/future plans and new positions
- Winners of awards, grants, prizes
- Commentary, Letters to the Editors, Book Reviews, anything else of interest to the community.

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NEW:

Send videos / video references for youtube channel.

Wikipedia.org

All “…pedia”s and news sources (CNN, etc.) use Wikipedia.

It is important that all pages that have any relevance to your publications or research be kept updated.

Parameterized&Exact Computation@Wikipedia

1. Core pages about parameterized & exact computation
2. Core pages in theoretical computer science
3. Applications and application areas
4. Famous FPT and W[1]-hard problems
5. Prominent tools and techniques

Based on input from Lars Jaffke and Erlend Vagset

Core pages about parameterized & exact computation

- https://en.wikipedia.org/wiki/Parameterized_complexity

update XP section, add links to other FPT-related pages, add a section on problem parameterizations including structural parameterizations

- https://en.wikipedia.org/wiki/Kernelization

add Turing kernelization, lossy kernels

Core pages in theoretical computer science

- https://en.wikipedia.org/wiki/Time_complexity

Add some references to subexponential-time FPT algorithms in Sub-exponential time section

Add fixed-parameter linear as a section

- https://en.wikipedia.org/wiki/Computational_complexity_theory

Update the text with suitable reference(s) to the page for Parameterized_complexity

- https://en.wikipedia.org/wiki/Algorithm#By_complexity

Update the text to incorporate examples of fixed-parameter tractable running times, with pointers to Parameterized_complexity

- https://en.wikipedia.org/wiki/NP-completeness#Solving_NP-complete_problems

Expand the pointer 'Parameterization: Often there are fast algorithms if certain parameters of the input are fixed.‘

- https://en.wikipedia.org/wiki/Data_pre-processing

Insert a suitably described reference to /Kernelization

- https://en.wikipedia.org/wiki/Approximation_algorithm

Update with references to, and the framework of, parameterized approximation algorithms

- https://en.wikipedia.org/wiki/Counting_problem_(complexity)

Expand the stub on counting problems, and add background on parameterized counting, #W[1], etc

Applications and application areas

More open ended; see if the pages of application areas can benefit from cross-references to pages relating to the IPEC community

https://en.wikipedia.org/wiki/Computational_biology

https://en.wikipedia.org/wiki/Computational_chemistry

https://en.wikipedia.org/wiki/Computational_geometry

https://en.wikipedia.org/wiki/Computational_topology

Famous FPT and W[1]-hard problems

- https://en.wikipedia.org/wiki/Vertex_cover#Fixed-parameter_tractability

Update with above-guarantee tractability, different parameterizations, reference to kernel

- https://en.wikipedia.org/wiki/Feedback_vertex_set

Add references to FPT algorithms & kernels, directed & undirected

- https://en.wikipedia.org/wiki/Complete_bipartite_graph

Add references for W[1]-hardness

- https://en.wikipedia.org/wiki/Longest_path_problem

Update with references to current-best algorithms

- https://en.wikipedia.org/wiki/Set_splitting_problem

Update with latest kernelization and algorithmic results

- https://en.wikipedia.org/wiki/Steiner_tree_problem

Insert references to various FPT and exact algorithms

Prominent tools and techniques

- https://en.wikipedia.org/wiki/Color-coding

Connect the page to other FPT-related pages by references

- https://en.wikipedia.org/wiki/Treewidth

Update with links to state-of-the-art Treewidth solvers

- https://en.wikipedia.org/wiki/Crown_decomposition

Crown decomposition: no page exists for it yet!

… add your favorite!

Parameterized&Exact Computation@Wikipedia

Coordinate the community effort:

https://doodle.com/poll/6a7fnrbqnfd82bqd

Closing business & discussion

...

Closing business & discussion

...

Thank you!