Report on CPM 2022

The 33rd Annual Symposium on Combinatorial Patter Matching

Nadia Pisanti
University of Pisa, Italy

The 33rd Annual Symposium on Combinatorial Patter Matching was held in Prague, Czech Republic, from June 27th to June 29th, 2022. Each year, CPM gathers scientists of many areas related to word combinatorics, discrete algorithms, string algorithms, that address problems such as text searching and indexing, data compression, pattern discovery, and that can be applied to bioinformatics, data mining, information retrieval, natural language processing, just to mention a few. The 2022 edition of CPM was held at the Faculty of Civil Engineering of the Czech Technical University in Prague, organised by Jan Holub, Jan Trávníček, Ondřej Guth, Tomáš Pecka, and Eliška Šestáková, Dominika Draesslerová, Štepán Plach y, Lucie Procházková, Regina Šmidová. The scientific program consisted of 3 invited talks, 2 highlights talks, and 26 regular talks of accepted papers which had been chosen by the Program Committee out of 43 submissions (coming from authors from 20 different countries and 4 different continents) on the basis of three reviews for each submission. The Program Committee consisted of 28 members (24 men, 4 women) from 18 different countries.

The detailed program, as well as some pictures can be found on the website https://www.stringology.org/event/CPM2022/.

The proceedings, edited by the program committee co-chairs Hideo Bannai and Jan Holub, have been published in volume 223 of LIPIcs. They are open access and can be found here:

https://drops.dagstuhl.de/opus/portals/lipics/index.php?semnr=16232.

The invited talks covered several interesting topics and were given by:

1. *Takehiro Ito* (Tohoku University, Japan):
   "Invitation to Combinatorial Reconfiguration"

2. *Jeffrey Shallit* (University of Waterloo, Canada):
   "Using automata and a decision procedure to prove results in pattern matching"

3. *Sharma V. Thankachan* (University of Central Florida, USA):
   "Compact Text Indexing for Advanced Pattern Matching Problems: Parametrized, Order-isomorphic, 2D, etc."

The highlights talks, introduced for the first time in CPM 2019, are special sessions dedicated to as many presentations of the highlights of recent results and

developments in combinatorial pattern matching topics, that have been recently published in other venues.

This year, CPM featured the following two highlight talks:

1. **_Tomasz Kociumaka_** ((MPI, Germany). "Small space and streaming pattern matching with k edits", paper presented at FOCS 2021.

2. **_Moses Ganardi_** (MPI, Germany). "Compression by Contracting Straight-Line Programs", paper presented at ESA 2021, and extended in J.ACM 2021.

The conference had 50 on-line and 59 in-person participants. The business meeting of CPM 2022 was chaired by the Steering Commitee and took place on June 27th, at the end of the afternoon session. In the business meeting, the PC chair and local organiser Jan Holub gave briefly an overview on the conference organisation. At the end of the meeting, Laurent Bulteau presented the conference edition of CPM 2023 which will take place in Paris, France. The social program took place the second day of CPM 2022 and started with a sightseeing ride through the city center on board of one of Prague's historical trams that used to roam Prague streets in the first half of the 20th century. The tram ride was followed by a guided tour through beautiful Prague's Old Town which started with the Charles Bridge and ended with a conference dinner at the Tiskarna Restaurant.

Thank you to the local organizers for their excellent work and all participants for the nice and successful conference.

Looking forward to see you at CPM 2023 in Paris!