

Dynamics and Graphs over Finite Fields: Algebraic, Number Theoretic and Algorithmic Aspects

CIRM, Luminy
29 March – 2 April, 2016

ARRIVAL INFORMATION ON MONDAY

17:00-23:00 Check-in
19:00– Dinner

Important information about your stay at CIRM can be found at

<http://www.cirm-math.fr/Infos/InformationsCIRMAng.pdf>

including information about late check-in on Monday.

SCHEDULE MEALS (Tuesday – Saturday)

7:00–9:00 Breakfast
12:30–14:30 Lunch
19:30– Dinner

Since the restaurant is not self-service (except for breakfast), it is important that every participant is on time for every lunch and dinner. Please note that dinner will not be served on Saturday.

SCHEDULE MORNING SESSIONS

Tuesday

8:50–9:00 Introduction and Welcome
9:00–9:40 Daniel Panario, *Periods of iterations of mappings over finite fields with indegrees restricted to $\{0, k\}$*
9:50–10:30 Thomas Ward, *Two classes of dynamically defined integer sequences*
10:30–11:00 Coffee Break
11:00–11:40 Christopher Smyth, *Describing integer sequences multiplicatively*
11:50–12:30 Pieter Moree, *Cyclotomic coefficients: progress and promise*

Wednesday

9:00–9:40 Winnie Li, *Unramified graph covers of finite degree*
9:50–10:30 Cameron Stewart, *Polynomial congruences and trees*
10:30–11:00 Coffee Break
11:00–11:40 Sergei Konyagin, *Number of nontrivial solutions of an equation with reciprocals*
11:50–12:30 William Banks, *Primes, exponential sums, and L-functions*

Thursday

- 9:00–9:40** Yuri Bilu, *Diversity in parametric families of number fields I*
9:50–10:30 Florian Luca, *Diversity in parametric families of number fields II*
10:30–11:00 Coffee Break
11:00–11:40 Par Kurlberg, *Missing class groups and class number statistics for imaginary quadratic fields*
11:50–12:30 Felipe Voloch, *Generators of elliptic curves over finite fields*

Friday

- 9:00–9:40** John Roberts, *Arithmetic aspects of piecewise linear dynamics*
9:50–10:30 Franco Vivaldi, *Hamiltonian stability over discrete spaces*
10:30–11:00 Coffee Break
11:00–11:40 Christian Mauduit, *Digits and pseudo-randomness*
11:50–12:30 Jean-Marc Deshouillers, *Sarnak's conjecture and automatic sequences*

Saturday

- 9:00–9:40** Ilya Shkredov, *On multiplicative properties of difference sets*
9:50–12:30 Coffee Break and Informal Discussions

SCHEDULE AFTERNOON SPECIALIZED SESSIONS (Tuesday – Friday)

- 14:30 – 16:00** Discussions and talks in small groups
16:00 – 16:30 Coffee Break
16:30 – 18:00 Discussions and talks in small groups

In addition to the plenary talks in the mornings, the participants are encouraged to organize themselves specialized sessions in the afternoon.

One approach is for people in some area to get together and see how many are interested in giving a talk. They choose a time in one of the afternoons. One or two hours may be sufficient; a group with more interest than that can agree on a second session. One of them collects names of speakers and titles.

Another approach is for someone to post a sheet with a session title, her/his name, and a suggestion for a time. Others can then sign up. There is no minimum or maximum size for these specialized groups (except that they have to be nonempty, like all groups). All information will be posted at a place to be indicated. Anybody is welcome to join any session or abstain.

One person (tba) will collect session and talk information, usually after the sessions.

A main purpose of this workshop is to allow sufficient time for discussions and research among small groups of participants. The specialized sessions go towards this goal, but of course people are also welcome to just get together informally ... just like we always do at meetings.

Wednesday afternoon will be free and we intend to organise a boat trip (if weather will allow). We will come back with more information soon.