#### Dagstuhl Seminar 20121 Sparsity in Algorithms, Combinatorics and Logic March 15 - 20, 2020

### Monday, March 16

09:00 - 10:25	Introductions Who are you & what's your favorite recent result? (2 min max)
10:30 - 11:00	Coffee Break
11:00 - 11:55	[Survey] Parameters Related to Bounded Expansion Zdenek Dvorak
12:15 - 14:00	Lunch
14:00 - 14:55	[Survey] Introduction to Logic Szymon Torunczyk
15:30	Cake/Coffee
16:45 - 17:45	Open Problem Session
18:00	Dinner

### Tuesday, March 17

09:00 - 09:55	[Survey] Parameterized Algorithms Daniel Lokshtanov
10:00 - 10:30	Coffee Break
10:30 - 11:10	Introduction to Model-Theoretic Dividing Lines: Stability & NIP Pierre Simon
11:15 - 11:55	Excluding a Vertex-Minor Rose McCarty
12:15	Lunch
15:30	Cake/Coffee
17:00 - 17:45	Breaking News (Collaboration Updates)
18:00	Dinner

# Wednesday, March 18

09:00 - 09:55	[Survey] Structural Sparseness: Theory & Practice Felix Reidl
10:00 - 10:30	Coffee Break
10:30 - 10:55	Sparsity & Dimension Piotr Micek
11:00 - 11:25	Shrubdepth: computing decompositions & simpler model-checking Jakub Gajarsky
11:30 - 11:55	An Algorithmic Theory of Integer Programming in Variable Dimension Martin Koutecky
12:15	Lunch
Afternoon	Possible excursion (e.g. hike, off-site dinner, etc). Details TBD.
15:30	Cake/Coffee
17:00 - 17:45	Breaking News (Collaboration Updates)
18:00	Dinner

#### Thursday, March 18

09:00 - 09:25	Lean Tree-cut Decompositions: obstructions and algorithms Archontia Giannopoulou
09:30 - 09:55	Structural Rounding: a practical perspective on structural graph algorithms Brian Lavallee
10:00 - 10:30	Coffee Break
10:30 - 10:55	Treewidth-pliability and PTAS for max-CSPs Marcin Wrochna
11:00 - 11:25	Tangles, mindsets, & the platonic chair: clustering qualities instead of objects Reinhard Diestel
11:30 - 11:55	Enumeration of First-order Queries & Nowhere Dense Classes of Graphs Alexandre Vigny
12:15	Lunch

15:30	Cake/Coffee
17:00 - 17:45	Breaking News (Collaboration Updates)
18:00	Dinner

# Friday, March 19

09:00 - 09:25	Improved Bounds for Centered Colorings Felix Schroder
09:30 - 09:55	Successor-invariant First-order Logic on Sparse Structures Kord Eickmeyer
10:00 - 10:30	Coffee Break
10:30 - 10:55	Obstructions for bounded shrub-depth and rank-depth O-joung Kwon
11:00 - 11:25	Empirical Evaluation of Approximation Algorithms for Generalized Graph Coloring and Uniform Quasi-Wideness Wojciech Nadara
11:30 - 11:55	Polynomial Planar Directed Grid Theorem Meike Hatzel
12:00 - 12:10	Wrapup
12:15	Lunch & Departure