Applied Topology in Bedlewo, 2013

Schedule of talks

21.07, Sunday

	Lecture Room C		
14:15	Rafał Komendarczyk, Knots and links in flows and fluids.		
16:15	Pavle Blagojevic, Using equivariant topology methods in combinatorial geometry.		
18:00	Dinner		
20:00	Lisbeth Fajstrup, Concurrency and directed topology. Problems and methods.		

Współfinansowane przez / Supported by













Warsaw Center of Mathematics and Computer Science





22.07, Monday

	Lecture Room C (chairmans – Michael Farber and Tadeusz Januszkiewicz)			
08:45	Official opening.			
09:00	Shmuel Weinberger, Quantit	ative problems in pure and applied	$l\ topology.$	
10:00	Daniel C. Cohen, On the topo	logy of matrix configuration space	S.	
11:00		coffee break		
11:15	Jarek Kedra, On the L^2 -geometry of volume preserving diffeomorphisms.			
12:15	EVGENY SHCHEPIN, A Persister	nt Morse Theory in the Plane.		
13:15	lunch break			
	Lecture Room A (chairman –		Lecture Room C (chairman –	
	Ran Levi)		Pavle Blagojevic)	
15:00	Omer Bobrowski, The Topol-		Jesus Gonzalez, Sequential	
	ogy of Noise.		motion planning of non-	
			colliding particles in Euclidean	
			spaces.	
15:45	VITALIY KURLIN, Reconstruct-		LUCILE VANDEMBROUCQ, On	
	ing persistent structures from		Topological Complexity and re-	
	noisy images.		lated invariants.	
16:30		coffee break		
	Lecture Room A (chairman –	Lecture Room B (chairman –	Lecture Room C (chairman –	
	Grzegorz Graff)	Mark Grant)	Jesus Gonzalez and Michael	
			Robinson)	
17:00	Stefano Maro, Periodic solu-	DIRK SCHÜTZ, Intersection Ho-	KALLEL SADOK, On the Topol-	
	tions with winding number N of	mology of Linkage spaces.	ogy of Diagonal Arrangements	
	a forced relativistic pendulum.		and their Complements.	
17:30	PIOTR BARTLOMIEJCZYK, The	VIKTOR FROMM, Morse Homo-	GRZEGORZ JABLONSKI, Persis-	
	exponential law for partial, local	topy and Homological Confor-	tent homology of maps.	
	and proper maps and its appli-	mal Field Theory.		
	cation to homotopy theory.			
18:30	Reception and welcome party.			

23.07, Tuesday

Description	20.01, Tuesday			
10:00 Dat Tamaki, Some applications of cellular stratified spaces.	Lecture Room C (chairman – Rafael Ortega and Aleksy Tralle)			
11:00 Coffee break 11:15 PARAMESWARAN SANKARAN, Formality of Schubert varieties in classical complex flag manifolds. 12:15 J. J. SÁNCHEZ GABITES, Cech cohomology of attractors of discrete dynamical systems. 13:15 Lecture Room A (chairman - Peter Bubenik) Lecture Room C (chairman - Shmuel Weinberger) 15:00 KRZYSZTOF ZIEMIANSKI, Path spaces on skeleta of tori. Proach to the study of digital spaces derived from a Khalimsky topological structure. 15:45 RADE T. ZIVALJEVIC, Compulational topology and effective obstruction theory. WASHINGTON MIO, Multiscale Analysis of Data Through Tensor Fields Underlying Their Distribution. 16:30 Coffee break Lecture Room A (chairman - Michael Robinson) Rafal Komendarczyk) 17:00 HELLEN COLMAN, Equivariant topological complexity. JOSE PERRA, Persistent Hologogy of Time-Delay Embeddings. SAITO, Minimal CW models for complements of 2-arrangements. 17:30 WOJCHECH LUBAWSKI, A new approach to the equivariant topological complexity. Morse functions on 2-complexes and triangulated 3-manifolds. 18:00 ALEKSANDRA FRANC, Some lower bounds for topological Coverings. HAN WANG, On the Space of Dusko Jojic, Shellability of complexes of directed trees.	09:00	Monica Nicolau, Tackling the topology and geometry underlying big data.		
11:15 PARAMESWARAN SANKARAN, Formality of Schubert varieties in classical complex flag manifolds. 12:15 J. J. SÁNCHEZ GABITES, Cech cohomology of attractors of discrete dynamical systems. 13:15	10:00	Dai Tamaki, Some applications of cellular stratified spaces.		
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Peter Bubenik Shmuel Weinberger	13:15		lunch break	
15:00 Krzysztof Ziemianski, Path spaces on skeleta of tori. 15:45 Rade T. Zivaljevic, Computational topology and effective obstruction theory. 16:30 Coffee break Lecture Room A (chairman – Jesus Gonzalez) 17:00 Hellen Colman, Equivariant topological complexity. Moshington Mio, Multiscale Analysis of Data Through Tensor Fields Underlying Their Distribution. 16:30 Kazysztof Ziemianski, Path proach to the study of digital spaces derived from a Khalimsky topological structure. Coffee break Lecture Room A (chairman – Lecture Room B (chairman – Rafal Komendarczyk) Michael Robinson) Rafal Komendarczyk) 17:00 Hellen Colman, Equivariant topological complexity. Mosse Peres, Persistent Homology of Time-Delay Embeddings. Sang-Eon Han, A new approach to the study of digital spaces for integral structure. Karim Alexander Adipration for complements of 2-arrangements. ISMAR Volic, Conguration space integrals and the cohological complexity. Morse functions on 2-complexes of busko Jojic, Shellability of lower bounds for topological Coverings.		Lecture Room A (chairman –		Lecture Room C (chairman –
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17:30 Wojciech Lubawski, A new Jose Antonio Vilches, Op- Ismar Volic, Conguration approach to the equivariant timality criteria for discrete space integrals and the cotopological complexity. Morse functions on 2-complexes homology of knot and link and triangulated 3-manifolds. spaces. 18:00 Aleksandra Franc, Some Han Wang, On the Space of lower bounds for topological Coverings. Coverings.		$topological\ complexity.$	mology of Time-Delay Embed-	ASITO, Minimal CW mod-
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and triangulated 3-manifolds. spaces. 18:00 Aleksandra Franc, Some Han Wang, On the Space of lower bounds for topological Coverings. complexes of directed trees.		approach to the equivariant	timality criteria for discrete	space integrals and the co-
18:00 Aleksandra Franc, Some Han Wang, On the Space of Dusko Jojic, Shellability of lower bounds for topological Coverings. Coverings. Dusko Jojic, Shellability of complexes of directed trees.		$topological\ complexity.$	Morse functions on 2-complexes	homology of knot and link
lower bounds for topological Coverings. complexes of directed trees.			and triangulated 3-manifolds.	spaces.
	18:00	ALEKSANDRA FRANC, Some	HAN WANG, On the Space of	Dusko Jojic, Shellability of
complexity.		lower bounds for topological	Coverings.	complexes of directed trees.
		complexity.		

24.07, Wednesday

	Lecture Room C (chairman – Matthew Kahle)		
09:00	Roy Meshulam, Random Latin Squares and 2-Dimensional Expanders.		
10:00	Lisbeth Fajstrup, Cut-off theorems in PV-models, a geometric approach.		
11:00	coffee break		
	Lecture Room A (chairman –	Lecture Room B (chairman –	Lecture Room C (chairman –
	Roy Meshulam)	Aleksy Tralle)	Monica Nicolau)
11:20	Mark Grant, Topological	GIL CAVALCANTI, Formality	Javier Arsuaga, Using com-
	complexity of braid groups.	Beyond Kähler geometry.	putational homology to analyze
			breast cancer genomic data.
12:05	Armindo Costa, Geometry		Matthew Wright, Hadwiger
	and topology of random 2-		Integration and Applications.
	complexes.		
12:45	lunch and excursion		

25.07, Thursday

	Lecture Room C (chairman – Francisco R. del Portal and Davide Ferrario)			
09:00	Pavle Blagojevic, On highly regular embeddings.			
10:00	RAN LEVI, The topology of neur	Ran Levi, The topology of neural systems.		
11:00		coffee break		
11:15	Roman Karasev, An analogue	of Gromov's waist theorem for co	loring the cube.	
12:15	Peter Bubenik, Persistent hor	nology of metric space valued func	tions.	
13:15		lunch break		
	Lecture Room A (chairman –		Lecture Room C (chairman –	
	Dan Cohen)		Uli Wagner)	
15:00	NICHOLAS SCOVILLE, Dis-		VIN DE SILVA, Persistent coho-	
	crete Lusternik-Schnirelmann		mology and the topological anal-	
	category.		ysis of recurrent signals.	
15:45	Petar Pavesic, Change-		MICHELE INTERMONT, Some	
	of-fibre for fibrewise-pointed		Results in Visualizing Data.	
	spaces.			
16:30	coffee break			
	Lecture Room A (chairman –	Lecture Room B (chairman –	Lecture Room C (chairman –	
	Parameswaran Sankaran)	Roman Karasev)	Lisbeth Fajstrup)	
17:00	Martin Pinsonnault, Homo-	Sinisa Vrecica, On equiparti-	MICHAEL WERMAN, Efficient	
	topy Type of Symplectomor-	tions of measures.	Classification using the Euler	
	phism Groups.		Characteristic.	
17:30	Luis Ugarte, Strongly Gaudu-	Mimi Tsuruga, Constructing	SHIZUO KAJI, An Application	
	chon metrics and complex de-	$Complicated\ Spheres.$	of Lie theory to Computer	
	formations.		Graphics.	
18:00	STANISŁAW SPIEŻ, Borsuk-	Joăo Pita Costa, The Persis-	Sanjeevi Krishnan, Higher	
	Ulam type theorems and	tence Lattice.	dimensional flow-cut dualities.	
	equilibria in a class of games.			

26.07, Friday

	Lecture Room C (chairman – Waclaw Marzantowicz and Swiatoslaw Gal)			
09:00	Michael Robinson, Morphisms between logic circuits.			
10:00	ULI WAGNER, Algorithmic and Combinatorial Aspects of Embeddings.			
11:00		coffee break		
11:15	Facundo Mémoli, Curvature s	ets over Persistence Diagrams.		
12:15	Rafal Komendarczyk, Knot and link invariants for vector fields.			
13:15	lunch break			
	Lecture Room A (chairman –		Lecture Room C (chairman –	
	Facundo Memoli)		Jarek Kedra)	
15:00	RAFAEL ORTEGA, Some dy-		Ulrich Koschorke, Nielsen	
	namical properties of analytic		coincidence numbers, Hopf in-	
	diffeomorphisms of the plane.		variants and spherical space	
			forms.	
15:45	HENRY ADAMS, Evasion paths		András Szűcs, Homologies	
	in mobile sensor networks.		are infinitely complex.	
16:30	coffee break			
	Lecture Room A (chairman –	Lecture Room B (chairman –	Lecture Room C (chairman –	
	Evgeny Shchepin)	Dai Tamaki)	Jaime Sanchez Gabites)	
17:00	EDIVALDO L. DOS SANTOS,	Younggi Choi, Module cat-	Frank Weilandt, An algo-	
	Borsuk-Ulam theorems and	egory weight of compact Lie	rithm for computing the Conley	
	their parametrized versions for	groups.	index of a Poincaré map.	
	spaces of type (a, b) .			
17:30	ALEXEY VOLOVIKOV, On co-	Daisuke Kishimoto, Hom-	Jacek Gulgowski, Path fol-	
	homological index of free G-	complexes and hypergraph col-	lowing algorithm based on the	
	spaces.	orings.	sign changes.	
18:00	MORITZ FIRSCHING, Equivari-	KOUYEMON IRIYE, Wedge de-	PETER FRANEK, Robust satisfi-	
	ant models for open manifolds	composition of polyhedral prod-	ability of systems of equations.	
	with an action of a finite group.	ucts.		

