



Sessions with changes are highlighted in violet. Presenters are indicated by *
**The 23rd Thailand-Japan Conference on Discrete and Computational Geometry,
 Graphs, and Games (TJCDG³ 2020+1)**
 September 3rd-5th, 2021 (GMT +7)
 Department of Mathematics, Faculty of Science, Chiang Mai University

Friday September 3rd, 2021

Time	Activities		
09.00 – 09.25	Opening Ceremony <ul style="list-style-type: none"> VDO Presentation (Sci CMU – Math CMU) Opening Address by Prof. Torranin Chairuengsri, The Dean of the Faculty of Science, Chiang Mai University Prof. Jin Akiyama, The Chair of JCDCGGG steering committee Brief Introduction of TJCDG³2020 by Supanut Chaidee, The Co-chair of TJCDG³2020 Assoc. Prof. Wanida Hemakul, The Chair of Program Committee 		
09.25 – 09.30	Group Photo		
09.30 – 10.30	Invited Speaker 1: Prof. Kokichi Sugihara <i>Family Tree of Impossible Objects Created by Optical Illusion</i> Chair: Supanut Chaidee		
10.30 – 10.40	Break		
10.40 – 12.00	Parallel sessions 1 (4 talks per room)		
	Room A Chair: Teerapong Suksumran	Room B Chair: Hiro Ito	Room C Chair: Chao Yang
	Xi Shen and Aaron Williams*. <i>A k-ary middle levels conjecture</i>	Erik Demaine and Kritkorn Karntikoon*. <i>Unfolding orthotubes with a dual Hamiltonian path</i>	Ghurumuruhan Ganesan*. <i>Redundancy of linear codes with graph constraints</i>
	Sethuraman Guruswamy and Murugan Varadhan*. <i>Every tree is a subtree of a graceful unicyclic graph</i>	Josh Brunner, Erik D. Demaine, Dylan Hendrickson, Victor Luo* and Andy Tockman*. <i>Complexity of simple folding orthogonal crease patterns</i>	Nattawut Phetmak*. <i>Random derangement with fixed number of cycles</i>
	Eduardo Rivera-Campo*. <i>Graph of uv-paths in 2-connected graphs</i>	Kota Chida*, Erik Demaine, Martin Demaine, David Eppstein, Adam Hesterberg, Takashi Horiyama, John Iacono, Hiro Ito, Stefan Langerman, Ryuhei Uehara and Yushi Uno. <i>Multifold tiles of polyominoes and convex lattice polygons</i>	Tomoaki Abuku* and Masato Tada. <i>Multiple hook removing game</i>
	Korina Ernjulie Manaloto* and Rovin Santos. <i>Prime labeling of trees using Eisenstein integers</i> [video presentation]	Joshua Ani, Josh Brunner*, Erik D. Demaine, Martin L. Demaine, Dylan Hendrickson, Victor Luo and Rachana Madhukara. <i>Orthogonal fold & cut</i>	
12.00 – 13.00	Lunch break		
13.00 – 14.00 (08.00 HU time: GMT+2)	Invited Speaker 2: Prof. Stefan Langerman <i>Towards Dynamic Voronoi Diagrams</i> Chair: Yushi Uno		
14.00 – 14.20	Break		

Friday September 3rd, 2021

14.20 – 15.40	Parallel sessions 2 (4 talks per room)		
	Room A Chair: Kirati Sriamorn	Room B Chair: Chie Nara	Room C Chair: Toshinori Sakai
	Johannes Obenaus* and Joachim Orthaber. <i>Complete geometric graphs with no partition into plane spanning trees</i>	Chao Yang*. <i>Tiling the plane connectively with Wang tiles</i>	Ilya Bogdanov, Grigory Chelnokov and Margarita Akhmejanova*. <i>Moving gold sand game</i>
	Zijian Xu and Vorapong Suppakitpaisarn*. <i>On the size of minimal separators for treedepth decomposition</i>	Takashi Yoshino*. <i>Renzuru tilings with asymmetric quadrilaterals</i>	Hironori Kiya* and Hirotaka Ono. <i>Multi-player open-hand BABANUKI</i>
	Chutima Saengchampa* and Chariya Uiyyasathian. <i>Hamiltonian decompositions of complete 4-partite 3-uniform hypergraphs</i>	Luis Jr. Silvestre* and Job Nable. <i>Generating frames via discretized substitution tilings</i> [video presentation]	Koki Suetsugu*. <i>Playing impartial games on a simplicial complex as extension of emperor sum</i>
	Rismawati Ramdani, Irsa Islammeidini Rusvianti and Hasni Rahmani Rohim. <i>On the edge irregularity strength of some disjoint union graphs</i>	Min Yan*, Yohji Akama, Hoi Ping Luk and Erxiao Wang. <i>Tiling of the sphere by congruent polygons</i>	Gerard Francis Ortega*. <i>Losing positions of Splythoff and 2-Splythoff encoded in the Tribonacci word</i>

Saturday September 4th, 2021

Time	Activities		
09.00 – 10.00 (22.00 NY time: GMT-4)	Invited Speaker 3: Prof. Erik Demaine <i>Understanding the Complexity of Motion Planning through Gadgets</i> Chair: Hiro Ito		
10.00 – 10.20	Break		
10.20 – 11.20 (13.20 AEST time: GMT+10)	Invited Speaker 4: Prof. Daniel Horsley <i>Decomposing Complete Multigraphs into Stars of Varying Sizes</i> Chair: Wannasiri Wannasit		
11.20 – 12.20	Parallel sessions 3 (3 talks per room)		
	Room A Chair: Chariya Uiyyasathian	Room B Chair: Ryuhei Uehara	Room C Chair: Chao Yang
	Md. Manzurul Hasan*, Debajyoti Mondal and Md. Saidur Rahman. <i>Linear-time rectilinear drawings of triconnected subcubic planar graphs with orthogonally convex faces</i>	Kazuki Matsubara* and Chie Nara. <i>The maximum numbers of the rigid faces and edges in continuous flattening processes of a polyhedron</i>	Nóra Frankl, Andrei Kupavskii and Arsenii Sagdeev*. <i>Max-norm analogs of Euclidean Ramsey theorems</i>
	Reiya Nosaka*, Hiroyuki Miyata and Shin-ichi Nakano. <i>A complete combinatorial characterization of greedy-drawable trees</i>	Giovanni Viglietta*, Csaba Tóth and Jorge Urrutia. <i>Minimizing visible edges in polyhedra</i>	Lily Chung* and Erik Demaine. <i>Celeste is PSPACE-hard</i>
Chengyang Qian*. <i>Number of Go positions on a connected graph</i>	Hiro Ito and Sae Neshiba*. <i>Flat folding problem with parallel creases with mountain-valley assignment on a convex polygonal piece of paper</i>	Kazushi Ito and Yasuhiko Takenaga*. <i>NP-completeness of peg Solitaire on graphs</i>	
12.20 – 13.00	Lunch Break		
13.00 – 14.00 (08.00 BE time: GMT+2)	Invited Speaker 5: Prof. Janos Pach <i>Crossing Parallels</i> Chair: Jin Akiyama, Gek Ling Chia		
14.00 – 14.20	Break		

Saturday September 4th, 2021

14.20 – 15.20	Parallel sessions 4 (3 talks per room)		
	Room A Chair: Ratinan Boonklurb	Room B Chair: Mari-Jo P. Ruiz	Room C Chair: Chao Kusollerschariya
	Penying Rochanakul* and Sayan Panma. <i>Prime-graceful number</i>	Jin Akiyama, Ikuro Sato*. <i>Distance to antipode of semi-regular polytope, measured by edges of equal length</i>	Ryohei Miyadera* and Hikaru Manabe*. <i>Previous player's positions of impartial three-dimensional chocolate-bar games</i>
	Aroonwan Suebsriwichai* and Thanasak Mouktonglang. <i>Rainbow connection number of Dutch windmill graph</i>	Jin Akiyama, Kiyoko Matsunaga, Sachiko Nakajima* and Natsumi Oyamaguchi. <i>Möbius flowers and buds</i> [video presentation]	Ryohei Miyadera*, Hikaru Manabe*, Kousei Suzuki, Taishi Aono*, Shouei Takahasi and Sohta Kannan. <i>Chocolate games and restricted Nim</i>
Sitta Alief Farihati*, A. N. M Salman and Pritta Etriana Putri. <i>Rainbow connection numbers of s-overlapping r-uniform hypertrees</i>	Nattapon Rintaew and Supanut Chaidee*. <i>The conditions for fitting a square in a trapezoid</i>	Kevin Limanta, Hopein Christofen Tang and Yozef Tjandra*. <i>Permutation-generated maps between Dyck paths</i> [video presentation]	
15.20 – 15.40	Break		
15.40 – 16.40	Parallel sessions 5 (3 talks per room)		
	Room A Chair: Gek Ling Chia	Room B Chair: Ryuhei Uehara	Room C Chair: Yushi Uno
	Sujoy Bhore, Jean Cardinal, John Iacono* and Grigorios Koumoutsos. <i>Dynamic independent set of squares</i>	Toshinori Sakai*. <i>Unidirectional monotonic paths through specified points in labeled point sets in convex position</i> [video presentation]	Naoki Matsumoto and Atsuki Nagao*. <i>Feedback game on Eulerian graphs</i>
	Saharath Sanguanpong* and Nantapath Trakultraipruk. <i>Γ-induced-paired dominating graphs of cycles</i>	Yiyang Jia*, Jun Mitani and Ryuhei Uehara. <i>Logical matrix representations in map folding</i>	Robert Barish* and Tetsuo Shibuya. <i>Solving teleportation mazes with limited visibility</i>
Tharit Sreekiatdilok* and Panupong Vichitkunakorn. <i>Biased domination game</i>		Oswin Aichholzer, Maarten Löffler*, Jayson Lynch, Zuzana Masárová, Joachim Orthaber, Irene Parada, Rosna Paul, Daniel Perz, Birgit Vogtenhuber and Alexandra Weinberger. <i>Dominect: a simple yet deep 2-player board game</i>	

Sunday September 5th, 2021

Time	Activities		
9.00 – 10.20	Parallel sessions 6 (4 talks per room)		
	Room A Chair: Kenta Ozeki	Room B Chair: Wacharin Wichiramala	Room C Chair: Hiro Ito
	Mikio Kano* and Masao Tsugaki. <i>Rainbow and properly colored spanning trees in edge-colored bipartite graphs</i> [video presentation]	David Caballero, Angel Cantu*, Timothy Gomez, Austin Luchsinger, Robert Schweller and Tim Wylie. <i>Unit tilt row relocation in a square</i> [video presentation]	Jack Spalding-Jamieson*. <i>Computing the probability of striking a battleship</i> [video presentation]
	Mark Anthony Tolentino* and Gerone Russel Eugenio. <i>The set chromatic number of the middle graph of extended stars</i> [video presentation]	Francis Delloro* and Job Nable. <i>Discrete quantum systems via tight group frames and their geometrization</i> [video presentation]	Jeffrey Bosboom, Josh Brunner, Michael Coulombe*, Erik D. Demaine, Dylan H. Hendrickson, Jayson Lynch and Lorenzo Najt. <i>The Legend of Zelda: The complexity of mechanics</i>
	Agnes Garciano, Reginaldo Marcelo*, Mari-Jo Ruiz and Mark Anthony Tolentino. <i>On rainbow mean colorings of brooms and double brooms</i>	Silvia Fernandez and Rimma Hamalainen*. <i>Direction-critical configurations in noncentral-general position</i> [video presentation]	Kevin Limanta* and Norman Wildberger. <i>Super Catalan numbers, chromogeometry, and Fourier summations over finite fields</i>
Ghurumuruhan Ganesan*. <i>Fractional graph capacity</i>	Pat Vatiwutipong and Nattapol Chanpaisit*. <i>Parallel curves detection method based on Hough transform</i>	Waitin Sinthu-Urai* and Piyashat Sripratak. <i>Snakes and ladders with large spinners under an alternative winning rule</i>	
10.20 – 10.40	Break		
10.40 – 11.40	Invited Speaker 6: Prof. Jittat Fakcharoenphol <i>Approximation Schemes for Geometric NP-hard Problems: Geometry Meets Algorithms</i> Chair: Wanida Hemakul		
11.40 – 12.00	Closing Ceremony <ul style="list-style-type: none"> • Thank you speech by Nattakorn Sukantamala, The Head of the Department of Mathematics • Special issue information by Supanut Chaidee, The Co-chair of TJCDCGGG2020 • Closing speech by Assoc. Prof. Wanida Hemakul, The Chair of Program Committee Prof. Jin Akiyama, The Chair of JCDCGGG steering committee 		