IWCIA 2025 - Preliminary Program

September 24, Wednesday

13:00-13:30	Registration
13:30-13:45	Opening
	Section I - Grids, Inverse Problems (chair: Peter Gritzmann)
13:45-14:05	*Benedek Nagy, Hussain Mohamed* Edge Detection on a Triangular Grid
14:05-14:25	*Benedek Nagy, Tibor Lukic* Binary Tomography on the Cairo Pattern
14:25-14:45	*Ede Troll, Benedek Nagy* Characterizing Translations on Octagonal-Square Grids, including the Khalimsky Grid
14:45-15:05	*Zoltán Domokos* The Injectivity of Affine Mappings Restricted to Convex Sets
15:05-15:30	Coffee break
15:30-16:30	Museum visiting
16:45-19:00	Welcome reception

September 25, Thursday

10:00-11:00	**Plenary Talk: Peter Gritzmann** (chair: Kálmán Palágyi) Diagrams, clustering, and coresets – and the representation of polycrystals
11:00-11:15	Coffee break
	Section II - Simplical Complexes, Thinning (chair: Antal Nagy, Péter Balázs)
11:15-11:35	*Gilles Bertrand* Morse Sequences on Stacks and Flooding Sequences
11:35-11:55	*Noel Nagy, Kálmán Palágyi* Fully Parallel 3D Curve-Thinning on (18,12) Pictures of the FCC Grid
11:55-12:15	*Gábor Németh* Similarity of 2D Thinning Algorithms and their k-Attempt Versions
12:15-12:35	*Péter Kardos* An Order-Independent 2D Parallel 4-Subiteration Thinning Algorithm
12:35-13:45	Lunch break
	Section III - Shape Descriptors, Object Detection and Classification (chair: Tibor Lukic)
13:45-14:05	*Dacian Goina* Fast Image Resizing Through Bijective Transformations: Applications in Classification Tasks
14:05-14:25	*Judit Szűcs, Tibor Gaál, Krisztián Németh, Tibor Guzsvinecz* Deep Learning-Based Domain-Specific Object Detection in a 3D Virtual Tour
14:25-14:45	*Florian Delconte, Jui-Ting Lu, Isabelle Debled-Rennesson, Hoai-Diem-Phuc Ngo, Bertrand Kerautret* A 3D Compact Shape Descriptor based on LIP Signature
14:45-15:05	*Péter Balázs, Péter Bodnár, Sara Brunetti* Rotational and Rotation-Free Multidirectional Q-Concavity Shape Descriptors
15:05-15:20	Coffee break
16:00-18:00	Social program
19:00-22:30	Gala dinner

September 26, Friday

10:00-11:00	**Plenary Talk: Lajos Hajdu** (chair: László Nyúl) Applications of algebra and number theory in digital image processing
11:00-11:15	Coffee break
	Section IV - Transformations, Automata, Partial Orders (chair: Benedek Nagy)
11:15-11:35	*Henning Fernau, Jennifer Rose, Thamburaj Robinson, Gnanaraj Thomas* Boustrophedon Pushdown Automata for Two-dimensional Picture Languages
11:35-11:55	*Gaëlle Largeteau-Skapin, Eric Andres, Lidija Comic, Rita Zrour* A Discrete Bijective Reflection with Near-Equivalence to Shear Rotation based Reflection
11:55-12:15	*Hasmik Sahakyan, Levon Aslanyan* Partial Order and Chain Decomposition of the Set of k-Subsets
12:15-14:00	Farewell lunch