

## Scientific Program - Overall scheduling

	Tuesday November 24	Wednesday November 25	Thursday November 26	Friday November 27
<b>8:30 – 9:00</b>	<b>Inauguration</b>			
<b>9:00 - 10:00</b>	<b>Plenary talk</b> <i>Reinhard Klette</i> Current Challenges in Vision-Based Driver Assistance	<b>Plenary talk</b> <i>Bhargab B. Bhattacharya</i> Digital Circularity and its Applications	<b>Plenary talk</b> <i>Konrad Polthier</i> Combinatorial aspects of discrete differential geometry	<b>Plenary talk</b> <i>Jorge Urrutia</i> On Modern Illumination Problems
<b>10:10 - 11:10</b>	<b>Image Models:</b> Barneva / Brimkov / Kanev	<b>Image Models:</b> Herrera-Navarro / Santillán/ Mendiola Santibáñez / Terol-Villalobos	<b>Digital Geometry:</b> Brimkov	<b>Digital Geometry:</b> Hulin / Thiel
	<b>Chollet / Wallet / Fuchs/ Andres/ Largeteau-Skapiin</b>	<b>Comic / DeFloriani</b>	<b>Faure / Feschet</b>	<b>Thibault / Sugimoto/ Kenmochi</b>
	<b>Gosselin / Damian / Solnon</b>	Thomas / Begam / <b>David</b>	<b>Roussillon / Tougne/ Sivignon</b>	<b>Nguyen / Debled-Renesson</b>
<b>11:10- 11:40</b>	<b>Coffee</b>	<b>Coffee</b>	<b>11:15</b> Bus leaves from the Hotel to the <b>CONFERENCE EXCURSION (TULUM)</b> and Conference Dinner (Dinner + Show at XCARET)	<b>Coffee</b>
<b>11:40 - 13:20</b>	<b>Representation, Processing, Analysis, and Reconstruction:</b> Alba / Arce-Santana	<b>Image Models and Digital Geometry:</b> Fourey / Brun		<b>Digital Topology:</b> Cousty / Bertrand / Couprie / Najman Christinal / Díaz-Pernil / Real Jurado Sagols / Marín Slapal
	Barucci / Brlek / <b>Brocchi</b>	<b>Coerjolly / Blot/ Jacob-Da Col</b>		
	Jiang / Klette / <b>Morales / Wang / Vaudrey</b>	<b>Coerjolly / Sivignon</b>		
	<b>Rodríguez / Largeteau-Skapiin/ Andres</b>	<b>Broutta / Coerjolly / Sivignon</b>		
	<b>Stelldinger / Tcherniavski</b>			
<b>13:20 - 16:00</b>	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	
<b>16:00 - 18:00</b>	<b>Segmentation, Thinning, and Skeletonization:</b> Chaussard / Couprie	<b>Parallel sessions:</b>		<b>Digital Tomography:</b>
	<b>Dalmau / Rivera</b>	Bhattacharya	Veelaert	Balasz
	Kardos / Németh/ <b>Pálgyi</b>	Largeteau-Skapiin	Nagar	Gerard
	<b>Malmberg / Lindblad/ Nyström</b>	Rodríguez	Palágyi	<b>Digital Geometry:</b>
	<b>Kerautret / Even</b>	Zrour	Pacheco	Nagy / Strand
	<b>Kerautret / Lachau</b>	Goffe	Gonzalez-Díaz	Nagy / Strand
		Coerjolly	Wiederhold	<b>17:20</b> <b>Conference Closure</b>
				19:00-19:45 <b>Movie (Chichen Itza)</b>
<b>Cultural program</b>	Tentative: 20:00 Movie / Hotel Show	Tentative: 20:00 Movie / Hotel Show		

## Scientific Program

### Tuesday, November 24

<b>8:30 – 9:00</b>	<b>Inauguration</b>
<b>9:00 - 10:00</b>	<b>Plenary talk</b> <b>Reinhard Klette</b> (University of Auckland, New Zealand) <b>Current Challenges in Vision-Based Driver Assistance</b>
<b>10:10 - 11:10</b>	<b>Image Models:</b> <b>Chairman: Akihiro Sugimoto</b>
<b>10:10</b>	<i>Reneta P. Barneva, Valentin E. Brimkov, <b>Kamen K. Kanev</b></i> Theoretical Issues of Cluster Pattern Interfaces
<b>10:30</b>	<i>Agathe Chollet, Guy Wallet, Laurent Fuchs, Eric Andres, Gaëlle Largeteau-Skapin</i> Omega-Arithmetization: A Discrete Multi-resolution Representation of Real Functions
<b>10:50</b>	<i>Stéphane Gosselin, Guillaume Damian, Christine Solnon</i> Signatures of Combinatorial Maps
<b>11:10 - 11:40</b>	<b>Coffee</b>
<b>11:40 - 13:20</b>	<b>Representation, Processing, Analysis, and Reconstruction:</b> <b>Chairman: Kamen Kanev</b>
<b>11:40</b>	<i>Alfonso Alba, Edgar Arce-Santana</i> Phase-Correlation Guided Search for Realtime Stereo Vision
<b>12:00</b>	<i>Elena Barcucci, Srečko Brlek, <b>Stefano Brocchi</b></i> PCIF : an Algorithm for Lossless True Color Image Compression
<b>12:20</b>	<i>Ruyi Jiang, Reinhard Klette, <b>Sandino Morales</b> , Shigang Wang, Tobi Vaudrey</i> Ego-Vehicle Corridors for Vision-Based Driver Assistance
<b>12:40</b>	<i><b>Marc Rodríguez</b>, Gaëlle Largeteau-Skapin, and Eric Andres</i> Adaptive Pixel Resizing for Multiscale Recognition and Reconstruction
<b>13:00</b>	<i>Peer Stelldinger, Leonid Tcherniavski</i> Contour Reconstruction for Multiple 2D Regions based on Adaptive Boundary Samples
<b>13:20 - 16:00</b>	<b>Lunch</b>
<b>16:00 - 18:00</b>	<b>Segmentation, Thinning, and Skeletonization:</b> <b>Chairman: Peer Stelldinger</b>
<b>16:00</b>	<i>John Chaussard, Michel Couprie</i> Surface Thinning in 3D Cubical Complexes
<b>16:20</b>	<i>Oscar Dalmau, Mariano Rivera</i> A General Bayesian Markov Random Field Model for Probabilistic Image Segmentation
<b>16:40</b>	<i>Péter Kardos, Gábor Németh, and <b>Kálmán Palágyi</b></i> An Order-Independent Sequential Thinning Algorithm
<b>17:00</b>	<i><b>Filip Malmberg</b>, Joakim Lindblad, Ingela Nyström</i> Sub-pixel Segmentation with the Image Foresting Transform
<b>17:20</b>	<i>Bertrand Kerautret, Philippe Even</i> Blurred Segments in Gray Level Images for Interactive Line Extraction

## Scientific Program

### Wednesday, November 25

<b>9:00 - 10:00</b>	<b>Plenary talk</b> <b>Bhargab B. Bhattacharya</b> (Indian Statistical Institute, India) <b>Digital Circularity and its Applications</b>
<b>10:10 - 11:10</b>	<b>Image Models:</b> <b>Chairman: Kálmán Palágyi</b>
<b>10:10</b>	<b>Ana M. Herrera-Navarro, Israel Santillán, Jorge D. Mendiola-Santibáñez, Iván R. Terol-Villalobos</b> Connected Viscous Filters
<b>10:30</b>	<b>Lidija Comic and Leila De Floriani</b> Tree-Based Encoding for Cancellations on Morse Complexes
<b>10:50</b>	<b>D.G. Thomas, M.H. Begam, and Nesamoni G. David</b> Parallel Contextual Hexagonal Array Grammars and Languages
<b>11:10 - 11:40</b>	<b>Coffee</b>
<b>11:40 - 13:00</b>	<b>Image Models and Digital Geometry:</b> <b>Chairman: Walter G. Kropatsch</b>
<b>11:40</b>	<b>Sébastien Fourey, Luc Brun</b> Connecting Walks and Connecting Dart Sequences in $n$ -D Combinatorial Pyramids
<b>12:00</b>	<b>David Coeurjolly, Valentin Blot, Marie-Andrée Jacob-Da Col</b> Quasi-Affine Transformation in 3-D: Theory and Algorithms
<b>12:20</b>	<b>David Coeurjolly, Isabelle Sivignon</b> Measure of Straight Lines and its Applications in Digital Geometry
<b>12:40</b>	<b>Alain Broutta, David Coeurjolly, and Isabelle Sivignon</b> Hierarchical Discrete Medial Axis for Sphere-Tree Construction
<b>13:00</b>	<b>Bertrand Kerautret, Jacques-Olivier Lachaud</b> Multi-scale Analysis of Discrete Contours for Unsupervised Noise Detection
<b>13:20 - 16:00</b>	<b>Lunch</b>
<b>16:00 - 18:00</b>	<b>Parallel sessions:</b>

	<b>Parallel session 1</b> <b>Chairman: Reneta P. Barneva</b>	<b>Parallel session 2</b> <b>Chairman: Mariano Rivera</b>
<b>16:00</b>	<b>A. Biswas, M. Dutt, P. Bhowmick, B.B. Bhattacharya</b> On Finding the Orthogonal Convex Skull of a Digital Object	<b>P. Veelaert</b> Image Segmentation with Flatness Filters
<b>16:20</b>	<b>G. Largeteau-Skapin, E. Andres</b> Generalized Preimage of Conics	<b>K.G. Subramanian, M. Geethalakshmi, A.K. Nagar, S.K. Lee</b> Triangle-tiled Picture Languages (this talk was cancelled)
<b>16:40</b>	<b>M. Rodríguez, G. Largeteau-Skapin, E. Andres</b> Adaptive Pixel Size Reconstruction with Topological Control	<b>G. Neméth, K. Palágyi:</b> Parallel Thinning Algorithms Based on Ronse's Sufficient Conditions for Topology Preservation
<b>17:00</b>	<b>R. Zrour, Y. Kenmochi, H. Talbot, L. Buzer, Y. Haman, I. Shimizu, A. Sugimoto</b> Optimal Consensus Set for Digital Line Fitting	<b>A. Pacheco, P. Real Jurado</b> Polyhedrization, Homology and Orientation
<b>17:20</b>	<b>R. Goffe, G. Damiand, L. Brun</b> : Extraction of Tiled Top-down Irregular Pyramids from Large Images	<b>R. Gonzalez-Díaz, M.J. Jimenez, B. Medrano</b> Cohomology Ring of 3D Cubical Complexes
<b>17:40</b>	<b>A. Vacavant, D. Coeurjolly</b> Medial Axis Extraction on Irregular Isothetic Grids	<b>P. Wiederhold, M. Villafuerte</b> Triangulation of DSS and MLP for Surface Area Estimation

## Scientific Program

### Thursday, November 26

<b>9:00 - 10:00</b>	<b>Plenary talk</b> <b>Konrad Polthier</b> (Freie Universität Berlin) <b>Combinatorial aspects of discrete differential geometry</b>
<b>10:00 - 11:00</b>	<b>Digital Geometry:</b> <b>Chairman: Peter Veelaert</b>
<b>10:00</b>	<b>Valentin E. Brinkov</b> On the Convex Hull of the Integer Points in a Bi-Circular Region
<b>10:20</b>	<b>Alexandre Faure, Fabien Feschet</b> Multi-primitive Analysis of Digital Curves
<b>10:40</b>	<b>Tristan Roussillon, Laure Tougne, Isabelle Sivignon</b> What Does Digital Straightness Tell About Digital Convexity ?
	<b>11:20</b> <b>Bus leaves from the Hotel to the</b>  <b>CONFERENCE EXCURSION (TULUM) and Conference Dinner (Dinner + Show at XCARET)</b>

**Note:****On Saturday November 28:****Post-conference tour ----- Excursion to CHICHEN ITZA for IWCIA'09 participants interested in.**

## Scientific Program

### Friday, November 27

<b>9:00 - 10:00</b>	<b>Plenary talk</b> <b>Jorge Urrutia</b> (UNAM – Universidad Nacional Autónoma de México) <b>On Modem Illumination Problems</b>
<b>10:10 - 11:10</b>	<b>Digital Geometry:</b> <b>Chairman: Valentin E. Brimkov</b>
10:10	<i>Jérôme Hulin, Édouard Thiel</i> Farey Sequences and the Planar Euclidean Medial Axis Test Mask
10:30	<i>Yohan Thibault, Akihiro Sugimoto, and Yukiko Kenmochi</i> Hinge Angles for 3D Discrete Rotations
10:50	<i>Nguyen Thanh Phuong, Isabelle Debled-Renesson</i> (was presented by <i>Bertrand Kerautret</i> ) Parameter-free Method for Polygonal Representation of the Noisy Curves
<b>11:10 - 11:40</b>	<b>Coffee</b>
<b>11:40 - 13:20</b>	<b>Digital Topology:</b> <b>Chairman: Benedek Nagy</b>
11:40	<i>Jean Cousty, Gilles Bertrand, Michel Couprie, Laurent Najman</i> Collapses and Watersheds in Pseudomanifolds
12:00	<i>Hepzibah A. Christinal, Daniel Díaz-Pernil, Pedro Real Jurado</i> Using Membrane Computing for Obtaining Homolog Groups of Binary 2D Digital Images
12:20	<i>Feliú Sagols and Raúl Marín</i> The Inscribed Square Conjecture in the Digital Plane
12:40	<i>Josef Slapal</i> Convenient Closure operators on $Z^2$
<b>13:00 -16:00</b>	<b>Lunch</b>
<b>16:00 - 18:00</b>	<b>Digital Tomography and Digital Geometry:</b> <b>Chairman: Petra Wiederhold</b>
16:00	<i>Péter Balázs</i> Reconstruction of Canonical $h\nu$ -Convex Discrete Sets from Horizontal and Vertical Projections
16:20	<i>Yan Gerard</i> About the Complexity of Timetables and 3D Discrete Tomography: a Short Proof of NP-hardness
16:40	<i>Benedek Nagy, Robin Strand</i> Neighborhood Sequences on $nD$ Hexagonal/Face-Centered-Cubic Grids
17:00	<i>Benedek Nagy, Robin Strand</i> Neighborhood Sequences in the Diamond Grid – Algorithms with Four Neighbors
<b>17:20</b>	<b>Conference Closure (incl. Announcement of the next IWCIA)</b>