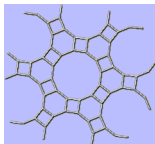# IAPR TC 18 "Discrete Geometry"

DGCI 2016, April 18-20, 2016

Facts

Team

- Isabelle Sivignon
  Researcher, GIPSA-lab, Grenoble, France
  Chair, in charge of the relationship with DGCI

- Partha Bhowmick
  Ass. Professor, Indian Inst. of Technology, Kharagpur, India
  Vice-chair, in charge of code repository and databases management

- Rocio Gonzalez-Diaz
  Ass. Professor, School of Comp. Eng., University of Seville, Spain
  Vice-chair, in charge of educational material, tutorials, open problems

Members

92 on the mailing list (+8 compared to 2014)

TC18 Board should be renewed for ICPR 2016 (in December).

Future directions of TC18

Links with other TCs

Collaborations between teams, summer school.

$\Rightarrow$ IAPR sponsorship possible.

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Website

- ▶ List major projects
- ▶ Enrich the gallery

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Website

▶ Renew the list of open problems

Open Problems in Digital Geometry and Topology

A web site on open problems in digital and image geometry has been suggested during the Winterschool DIG'2000 at Dagstuhl/Germany.

Problems to be published on this web site may be posted to mi-webmaster@auckland.ac.nz in pdf format. Please limit your file submissions to just (about) 2 pages and use the format shown in this template file. They will be published in the list below together with the dat when received, your name (with a link to your email address), and links provided by you for related publications, test data, web sites etc.

Responses to the published problems will be inserted into the table, next to the related problem. A response should also be in pdf format (about 2 pages) and may include links to further material.

Date	Problem/Response	(First) Author	Links
9, May 2001	1 Surface Area Estimation	Reinhard Klette	CITR-TR-87
11, September 2001	1.1 Estimation algorithm and multigrid convergence proof	David Coeurjolly	Technical Report
10, May 2001	2 Superlinear Convergence for Length Estimation	Reinhard Klette	CITR-TR-87
22, June 2001	3 Axiomatic 3-D Digital Topology	T. Yung Kong	
21, August 2001	4 Binary Codes for Counting Digital Topologies	Atsushi Imiya	
11, September 2001	5 Minimal-Number DSS and DPS Segmentations	Azriel Rosenfeld	CITR-TR-93
27, January 2005	5.1 On the min DSS problem of closed discrete curves	Fabien Feschet	
4, May 2009	5.2 Minimum decomposition of a digital surface into digital plane segments is NP-hard	David Coeurjolly	
16, April 2002	6 MLP Linear-time 3D Length Estimation	Thomas Buelow	CITR-TR-55
17, February 2003	7 Connectivity Number	Valentin Brimkov	CITR-TR-125
23, April 2004	8 List collected on a 2004 Dagstuhl seminar	Reinhard Klette	
01, November 2004	8.1 Vertices of the digital line/(hyper)plane segment polytope	Valentin E. Brimkov	
	8.2		
01, November 2004	9 Convex digital curve segmentation	Valentin E. Brimkov	
13, December 2004	10 The convex skull problem	Jean-Marc Chassery	
15, January 2005	11 Animal and B-Problems	Akira Nakamura	
17, September 2007	11 Surface Area Estimation with Non-Cubic Voxels	Nahum Kiryati	