

# IAPR Technical Committee 18: "Discrete Geometry and Mathematical Morphology"

Bertrand Kerautret and Mickael Wilkinson

<http://www.tc18.org>  
tc18@tc18.org



# International Association on Pattern Recognition



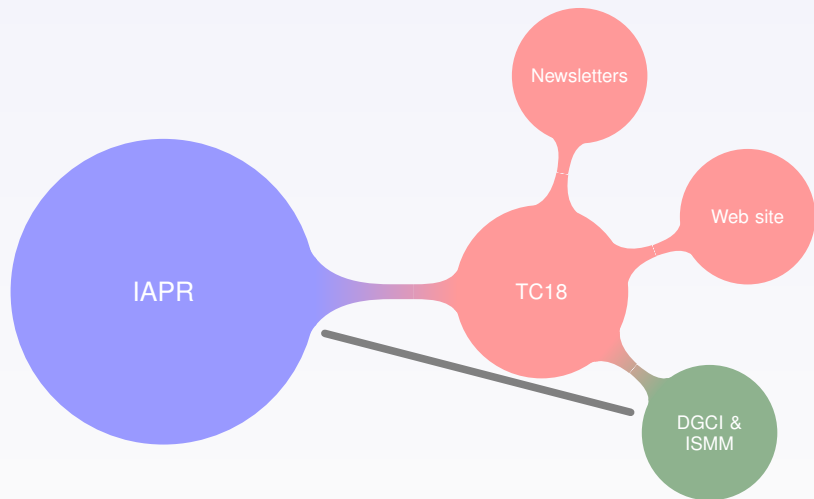
## Purpose

- ▶ Promote pattern recognition and the allied branches of engineering activities
- ▶ Advance international co-operation
- ▶ ...

## Activities

- ▶ Sponsored and endorsed Events ;)
- ▶ ICPR 2018
- ▶ Newsletters
- ▶ **Technical Committees**
- ▶ ...

## TC18 "Discrete Geometry and Mathematical Morphology"



# TC18 “Discrete Geometry and Mathematical Morphology”

## Purposes

Promote interactions and collaboration between researchers working on discrete geometry and Mathematical Morphology.

## Facts

- ▶ Officially created during ICPR 2001.
- ▶ Include **Mathematical Morphology** from last year.
- ▶ 112 members (+17 compared to 2016)
- ▶ Main conferences: DGCI and **ISMM**  
(a member of the TC18 chairs is in the DGCI Steering Committee).



## 2. New organisation and recent activities

### Chairs

- ▶ Bertrand Kerautret (chair, France): relationships with IAPR, website
- ▶ Mickael Wilkinson (co-chair, The Netherlands): relationships with ISMM

### Boards members

- ▶ Arindam Biswas (India)
- ▶ Andrea Frosini (Italia)
- ▶ Georgios K Ouzounis (USA)
- ▶ Hugues Talbot (France)

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### Inclusion of Mathematical Morphology

- ▶ Introduced by Mickael Wilkinson at ISMM 2017.
- ▶ New member list is going to be merged.
- ▶ Site update with ISMM events.

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- ▶ Now a new "sympa" server for mail diffusion.
- ▶ Open with a moderation system.
- ▶ **Two main lists:** `members@tc18.org` and `tc18@tc18.org` (board members)

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### New site edition system from *GitHub*

<https://github.com/TC-18/tc18.org>



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### New GitHub team: list main repositories related to TC18

<https://github.com/TC-18/>

TC-18 / tc18.org Unwatch 2 Unstar 2 Fork 1

Code Issues 0 Pull requests 0 Projects 0 Wiki Settings Insights

tc18.org web site (<http://www.tc18.org>) Edit

Add topics

74 commits 1 branch 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find file Clone or download

kerautret committed on GitHub Merge pull request #18 from kerautret/Add Latest commit c678b17 26 days ago

code_data_set	link	26 days ago
css	ajout fichiers	a month ago
dgci	ajout fichiers	a month ago
dgci_sc	ajout fichiers	a month ago
docs	ajout fichiers	a month ago
files	update report	28 days ago
fonts	ajout fichiers	a month ago
images	add logo	28 days ago
js	ajout fichiers	a month ago
newsletters	newsletter sent	28 days ago
openProblems	ajout fichiers	a month ago
subfields	ajout fichiers	a month ago

## 3. Upcoming activities

### New edition of RRPR workshop

- ▶ Reproducible Research in Pattern Recognition.
- ▶ Special focus on Discrete Geometry and Mathematical Morphology.
- ▶ To be proposed in the next ICPR 2018.

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### Special issue of IPOL journal with TC18/RRPR

(Journal Images Processing On line: [www.ipol.im](http://www.ipol.im))

- ▶ Select previous papers of RRPR and TC18 topics (or other).
- ▶ Can be companion papers of other papers.
- ▶ Exploit the new automatic online demonstration system.

(to be confirmed)

## Demo description interface:

The screenshot shows a web browser window titled "ipolcore.ipol.im" displaying the "Demo Editor" interface. The page title is "#555557: Test demo DGCI". Below the title, there is a section labeled "DDL:" with a search prompt "Press Ctrl+F to search". The main content is a JSON configuration for a demo, with line numbers 1 through 24 on the left side of the editor. The configuration includes an "archive" section with "files" (input\_0.png, titi.png) and "info" (run\_time). It also includes a "build" section with a "build1" step that uses a URL to fetch a tar.gz file and execute a "make" command. Finally, there is a "general" section with "demo\_title" and "xlink\_article". At the bottom of the editor, there is a navigation bar with "Demos", "Templates", "Status", and "Logout" links.

```

1- {
2-   "archive": {
3-     "files": {
4-       "input_0.png": "Input",
5-       "titi.png": "Noisy"
6-     },
7-     "info": {
8-       "run_time": "run time"
9-     }
10-  },
11-  "build": {
12-    "build1": {
13-      "url": "http://ker.iutsd.univ-lorraine.fr/copy.tar.gz",
14-      "construct": "cd CopyCode; make",
15-      "move": "CopyCode/copyfile"
16-    }
17-  },
18-  "general": {
19-    "demo_title": "Test Demo DGCI",
20-    "xlink_article": ""
21-  }
22- }
23-
24-

```

[http://ipolcore.ipol.im/cp/demo\\_edition/555557](http://ipolcore.ipol.im/cp/demo_edition/555557)

## Online demonstration:

The screenshot shows a web browser window with the URL `ipolcore.ipol.im`. The page header includes the IPOL logo and the text "IPOL Journal · Image Processing On Line". Navigation links for "HOME · ABOUT · ARTICLES · PREPRINTS · WORKSHOPS · NEWS · SEARCH" are present, along with a search input field.

The main heading is "Test Demo DGC I". Below it are three tabs: "article", "demo" (which is selected), and "archive". A light blue banner contains the text: "Please cite the reference article if you publish results obtained with this online demo."

The interface features a "Select input(s) [-]" section with an "Upload data" button, a "Thumbnail size" dropdown set to "128" px, and checkboxes for "credits" and "titles". A thumbnail image of a woman's face is displayed.

Below this is an "Input(s) [-]" section with a "Param [-]" dropdown set to "reset". A text input field for "maximum number of lines (nlines)" is set to "0". A note states: "if 0 (default) then all line will be displayed. (see description button for more details)". A blue "Run" button is positioned below these controls.

At the bottom, there is a "Results [-]" section which is currently empty.

Footer text includes: "feeds & twitter · sitemap · contact · privacy policy · ISSN: 2105-1232 · DOI: 10.5201/ipol. IPOL and its contributors acknowledge support from September 2010 to August 2015 by the European Research Council (advanced grant Twelve Labours n°246961). IPOL is also supported by ONR grant N00014-14-1-0023, CNES (MISS project), FUI 18 Plein Phare project, and ANR-DGA project ANR-12-ASTR-0035."

`http://ipolcore.ipol.im/demo/clientApp/demo.html?id=555557`

## 4. Update of Open Problems

Your contribution/idea are welcome

- ▶ Lectures, presentations, survey, etc.
- ▶ Software, code.
- ▶ Data sets and benchmarks frameworks.

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Update open problems

<http://www.tcl8.org/OpenProblems.php>