

# Towards Performance evaluation of Graph-based Representation

Salim Jouili and Salvatore Tabbone

LORIA-QGAR, Nancy - France



# Performance evaluation

- Graph-based representations
  - Point of interest
  - Regions adjacency
  - Spatial relations
  - Skeleton
- Impact : Graph matching method performances

# Setup

- Three data sets
  - Shape
  - Logo
  - Lettrine
- Six Graph matching methods
- K-nn classification

# Experimentally

- Real impact
  - The graph-based representation technique depends on the image type
  - Results depend on the chosen representation
  - the ranking position of a similarity measure method

## Example

	Shape		Logo		
	H+D	Skel	RAG	H+D	Skel
Jouili	56,60%	<b>61.29%</b>	<b>93,40%</b>	76,13%	75,47%
Robles-Kelly	57,89%	<b>67,52%</b>	<b>82,03%</b>	69,33%	71,27%
Lopresti	<b>35,99%</b>	34,72%	<b>91,37%</b>	81,83%	80,93%
Papadopoulos	<b>46,22%</b>	40,16%	<b>94,67%</b>	84,40%	81,87%
Riesen	30,06%	<b>47,73%</b>	<b>85,57%</b>	70,49%	67,93%
Neuhaus	30,53%	<b>46,44%</b>	<b>86,70%</b>	73,93%	69,20%

Table: Classification accuracy