Updated Network Analysis of the Imprecise Probability Community based on ISIPTA Electronic Proceedings

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Interactive Poster

0. Data and Goals

We investigate the electronic proceedings from the ISIPTA conferences 1999 - 2013.

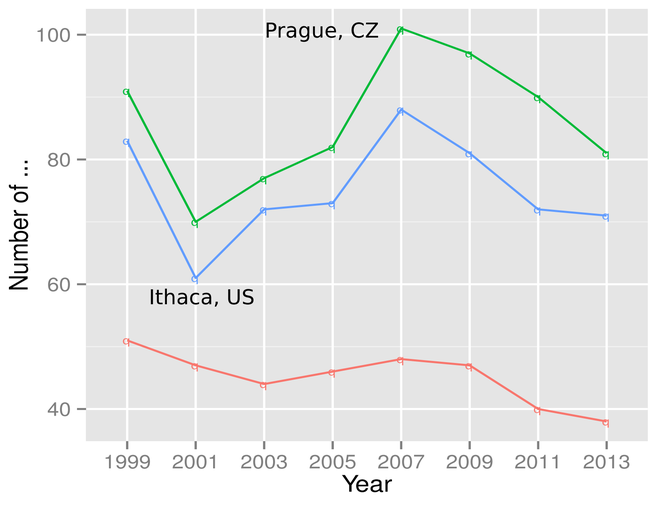
The data are read from the individual proceeding websites; location information are estimated by the authors' e-mail address domains. In a post-processing step, we inspected and corrected the data by hand.

This poster is a follow-up on the analysis of the IP community presented as a poster at ISIPTA'2011. We present the updated collaboration graph, network and summary characteristics, and aim to identify the hotbeds of IP research activities.

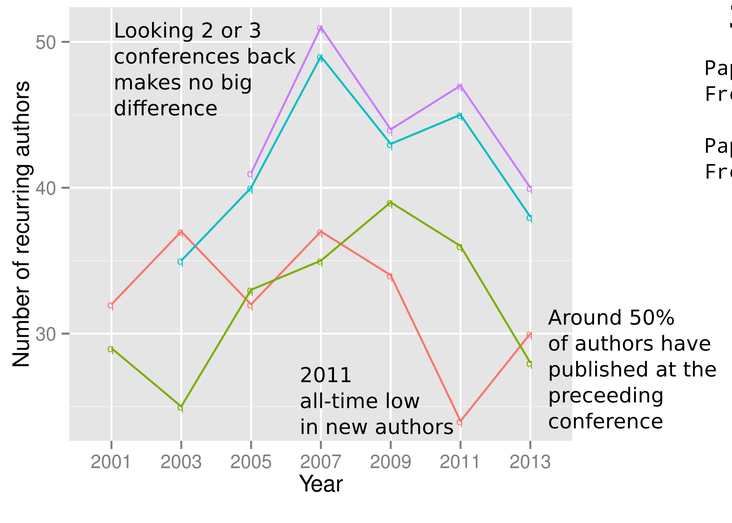
0.1. Mark and Comment

Feel free to mark and comment on interesting aspects you find in the presented data!

1. Simple Summary Statistics



2. Recurring and New Authors



3. Papers per Author

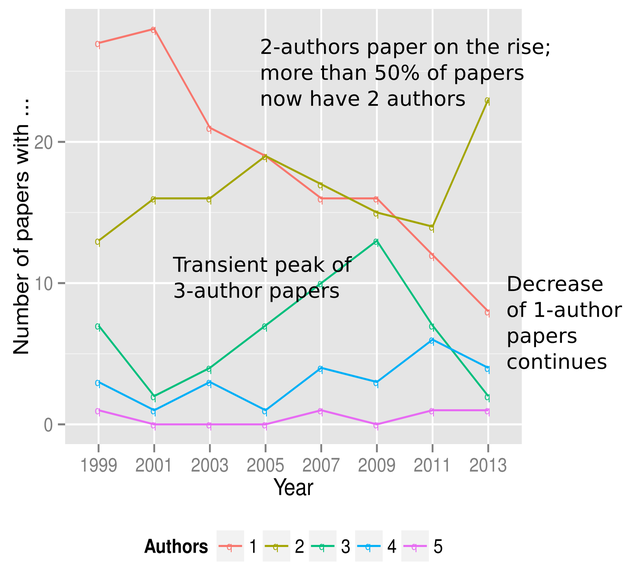
Papers	1	2	3	4	5	6	7	8	9
Frequency	189	45	26	13	8	13	2	2	1

Papers	10	11	12	13	14	15	16	17	18
Frequency	1	-	5	-	-	-	-	2	1

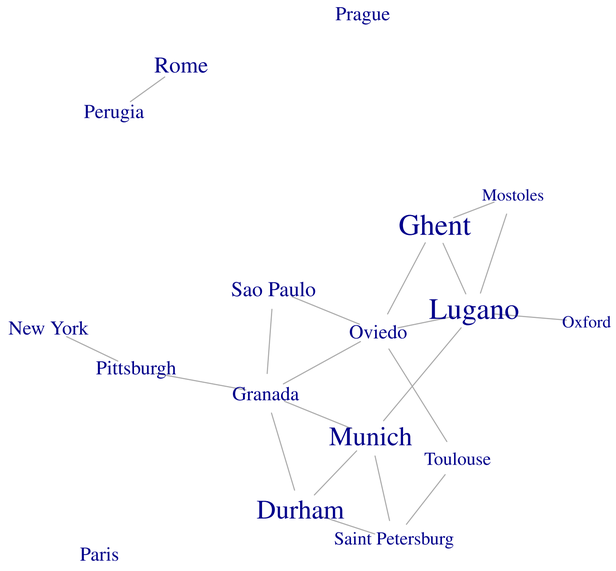
61% of authors have contributed one paper and 15% two papers; the distribution has a long tail

```
Angelo Gilio (20):  7
Robert Nau (248):  7
Fabio Cuzzolin (78):  8
Jirina Vejnarova (147):  8
Barbara Vantaggi (30):  9
Enrique Miranda (69): 10
Fabio Cozman (77): 12
Frank Coolen (88): 12
Lev Utkin (170): 12
Matthias Troffaes (194): 12
Serafin Moral (264): 12
Thomas Augustin (287): 17
Marco Zaffalon (182)::17
Gert de Cooman (101): 18
```

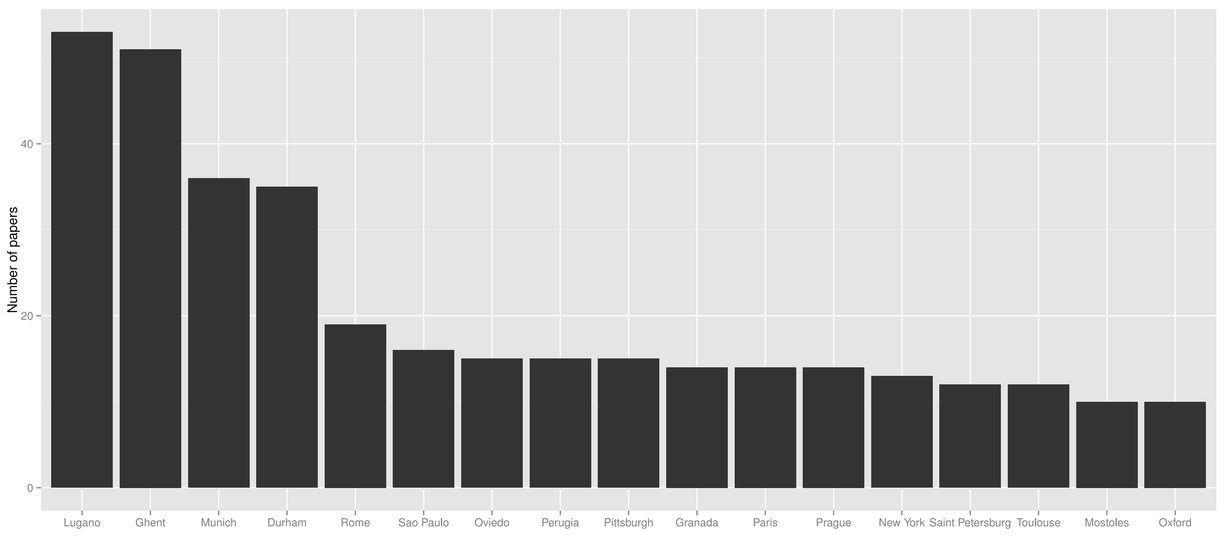
4. Authors per Paper



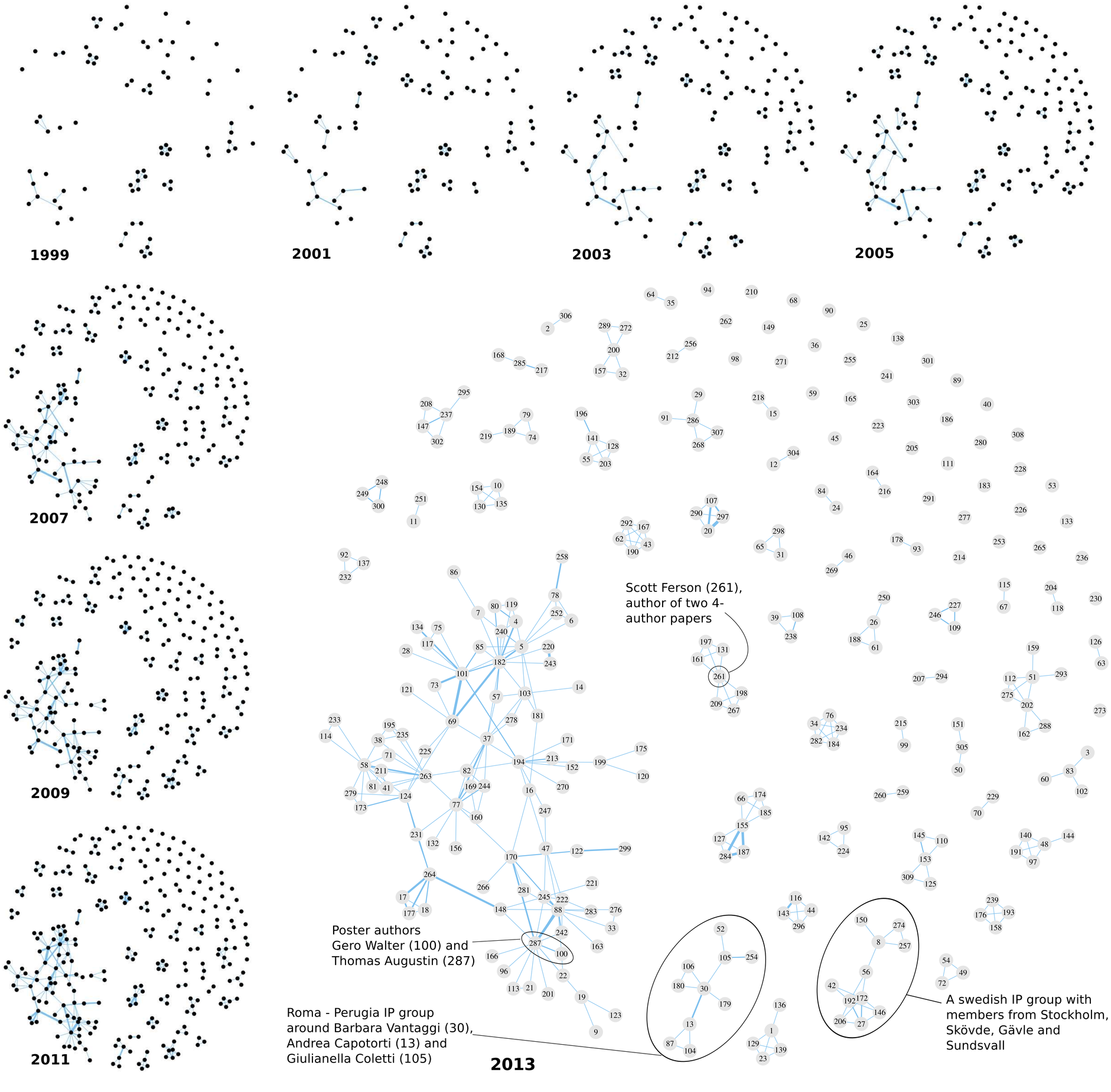
5. IP research centers



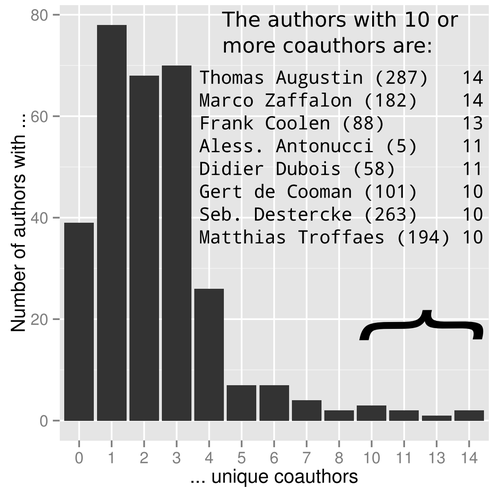
A paper counts for a city when its first or second author are located in this city at the time of publication.



6. Coauthor network



6.1 Number of coauthors



6.2. Graph measures

Based on the largest cluster of the graph.

Degree of separation = 3.83

This average path length implies that on average every author is only 4 steps away from any other author; the well-known "small world phenomenon" states 6 steps.

Diameter = 8

The diameter is the longest shortest path. There are several shortest paths with length 8 in this graph. One of them is:

Alexander Lepskiy (9) or Igor Rozenberg (123)
Andrew Bronevich (19)
Thomas Augustin (287)
Frank Coolen (88)
Damjan Skulj (47)
Matthias Troffaes (194)
Enrique Miranda (69)
Marco Zaffalon (182)
Fabio Trojani (80)

7. Do It Yourself

The updated ISIPTA R-package will soon be available. You can then install it by

```
R> install.packages(c("igraph", "reshape2",
+   "colorspace", "geosphere", "rworldmap",
+   "ggplot2", "plyr", "stringr"))

R> install.packages("ISIPTA")
```

The graphs on this poster can be reproduced using the package demos:

```
R> demo(package = "ISIPTA") # show all demos
R> demo("simple-summary", package = "ISIPTA")
```

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