

MATHEMATICS in Brazil

from the 1950s to the 2020s



Brazil promoted to Group V of the IMU

International Mathematical Union



January 19, 2018
IMU AO Circular Letter 2/2018

To: The Adhering Organizations of the International Mathematical Union (IMU)
From: Helge Holden, IMU Secretary

Result of applications from Bangladesh and Brazil

Dear colleagues,

I am happy to report about the outcome of the postal ballots on the applications from Bangladesh and Brazil, see [IMU AO Circular Letter 14/2017](#).

The vote on Bangladesh's application for Associate Membership yielded a positive result. As of February 2018, Bangladesh will be an Associate Member of the IMU.

The vote on Brazil's request to change from group IV to group V yielded a positive result.

As of February 2018, Brazil will adhere to group V of the IMU.

Thank you for your contributions.

Sincerely

Helge Holden
Secretary of the International Mathematical Union

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From: Helge Holden

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IMU AO Circular Letter 2/2018
(IMU)

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Brazilian universities: a late start



Universidade do Brasil
(1920)

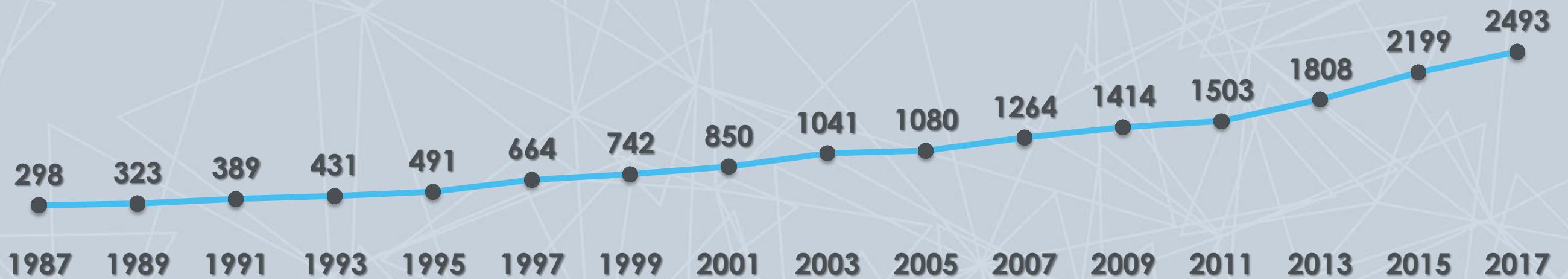


Universidade de São Paulo
(1934)

Build-up of a national science system

1916	ABC - Brazilian Academy of Sciences
1930	Ministry of Education
1934	Faculty of Philosophy, Sciences and Languages of University of São Paulo
1939	National Faculty of Philosophy of University of Brasil (Rio de Janeiro)
1948	SBPC - Brazilian Society for the Advancement of Science
1949	CBPF - Brazilian Physics Research Center
1951	CNPq, CAPES - National Research Agencies
1952	IMPA - Instituto de Matemática Pura e Aplicada
1954	Brazil adheres to the IMU - International Mathematical Union
1957	1 st Brazilian Mathematical Colloquium
1963	FAPESP - São Paulo State Research Agency
1967	FINEP - National Innovation Agency
1969	Brazilian Mathematical Society
1985	Ministry of Science and Technology

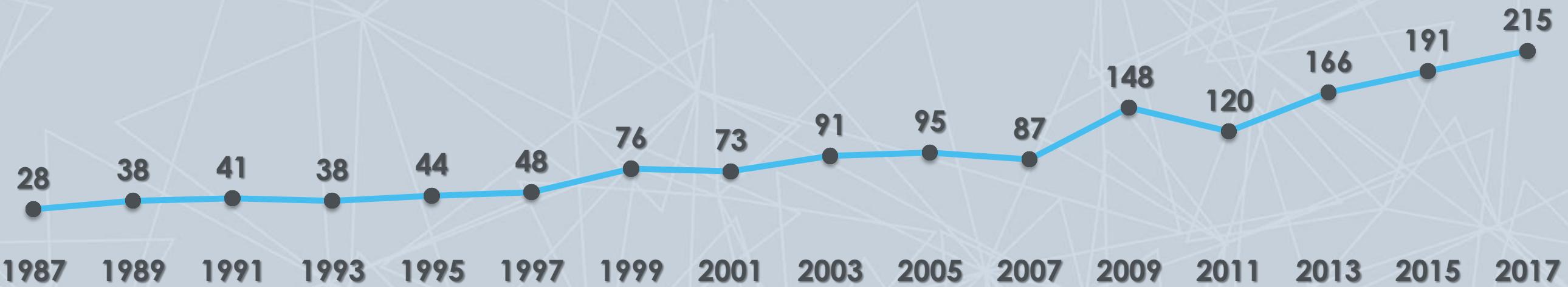
Papers by Brazilian mathematicians: number



Papers by Brazilian mathematicians: % of world



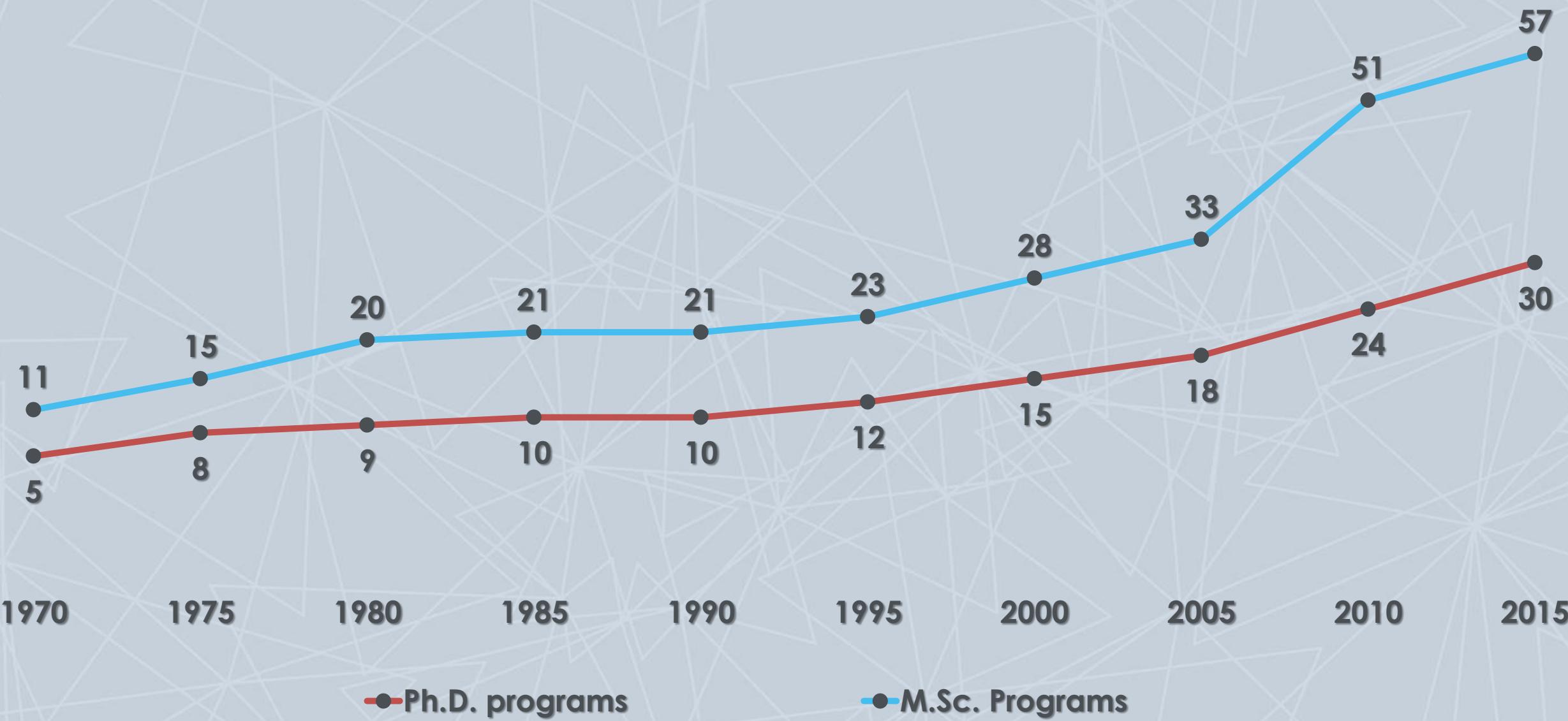
Brazilian papers in Top 100 math journals



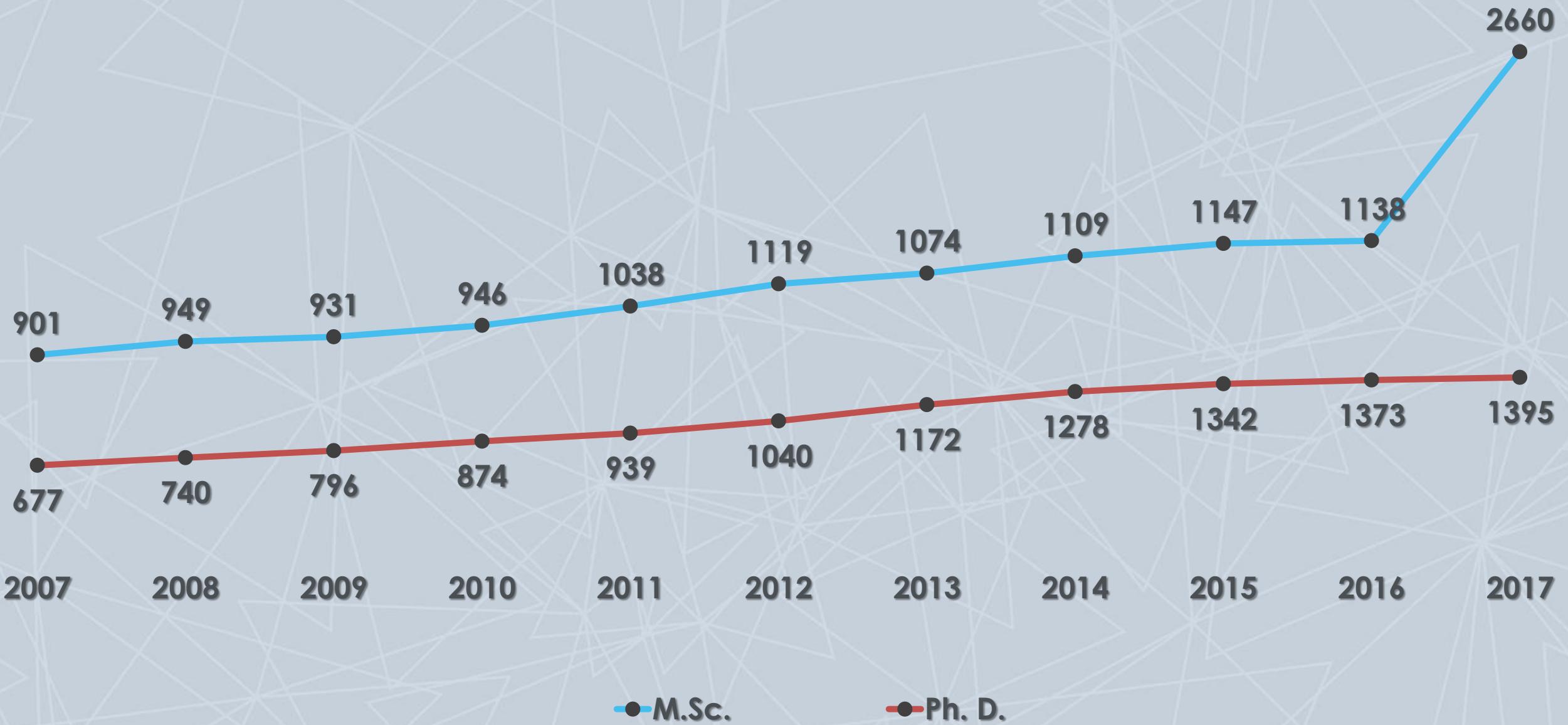
Brazilian speakers at the International Congress of Mathematicians



Graduate programs in mathematics



Students enrolled in graduate studies



Faculty active in graduate programs



Development built on international cooperation

1940s - 50s

European mathematicians visiting for long periods (especially) the University of São Paulo

1960s - 70s

Training of young Brazilian mathematicians abroad (mostly USA)

1980s - 90s

French “Coopération”: Bérard, Ghys, Yoccoz, Bonatti etc

2000s – 10s

Brazil-France “Accord”

UMI J.-C. Yoccoz
CNRS/IMPA

Jean-Christophe Yoccoz



Development built on international cooperation

Regional cooperation

Dissemination of mathematics in Latin America (UMALCA)

Contribution to international organizations

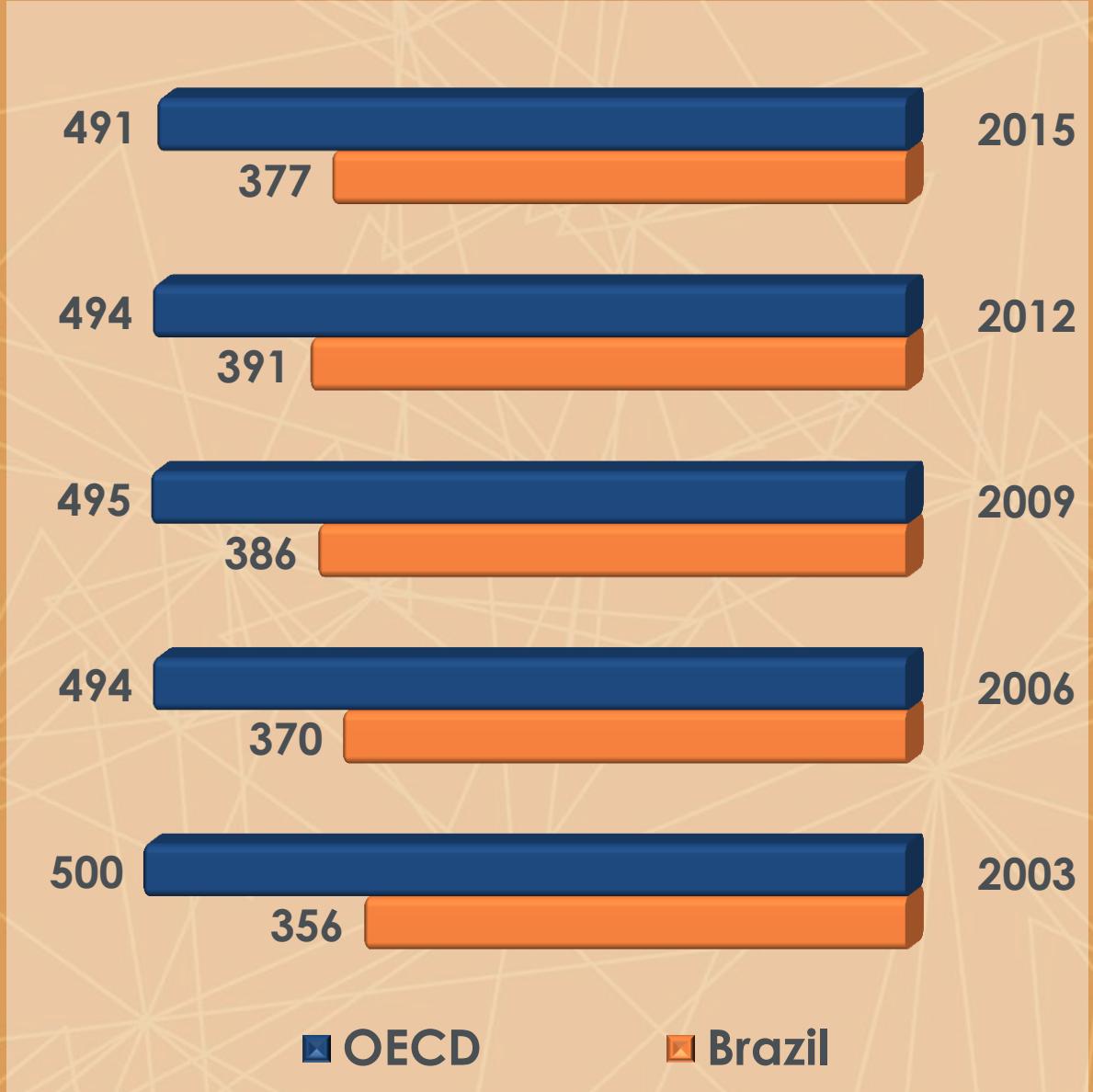
International Mathematical Union

Mathematical Council of the Americas

Urgent need to improve math education

**Brazilian math education
still lagging behind
international standards.**

**But there are some positive
recent developments.**



Urgent need to improve math education

**Math Olympiads making
concrete inroads in schools
around the country**



Towards gender balance



**1st Brazilian Girls
Mathematical
Olympiad**

**to be launched
in 2019**

Pursuing the popularization of mathematics

Math Festival

Public Lectures

Math in Media

The collage consists of four separate media snippets arranged in a 2x2 grid:

- Top Left:** A screenshot from The New York Times article titled "From a Compound in the Brazilian Hills, Excellence in Math Emerges". It shows a modern building with large glass windows and greenery.
- Top Right:** A screenshot from the EPOCA news website under the 'EDUCAÇÃO' section. The headline reads "Étienne Ghys: ‘Sem matemática não há como desenvolver um país’". Below it is a quote: "premiado pesquisador francês afirma que o Brasil precisa ter mais engenheiros e profissionais com raciocínio matemático para impulsionar o desenvolvimento".
- Bottom Left:** A screenshot from Revista VEJA. The headline is "Matemática bacana". It features a man standing in front of a chalkboard covered in mathematical equations and diagrams.
- Bottom Right:** A screenshot from G1 JORNAL NACIONAL. The headline is "Brasil sedia Olimpíada Internacional de Matemática e seis são escolhidos". It shows two people on a news studio set.