



**INSTITUTE OF MATHEMATICS  
AND COMPUTER SCIENCE**

UNIVERSITY OF SÃO PAULO



# INSTITUTE PRESENTATION

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# USP IN NUMBERS

Source: USP em Números, EGIDA 2023

The Institute of Mathematics and Computer Science is one of the research and teaching units of the University of São Paulo (USP), the main university in Latin America. USP will be 90 years old in 2024, promoting a transformation in the Brazilian society through its students and alumni, its cultural, extension, and research projects promoted by its hospitals, museums, orchestras, and many other activities offered to the public. According to QS World University, USP has been recently ranked the 85<sup>th</sup> best university in the world.

## CAMPUSES

São Paulo · Bauru · Lorena · Piracicaba  
Pirassununga · Ribeirão Preto · São Carlos · Santos

**184.517** (2022)

Participants in Cultural and Extension activities

**48**

Libraries

**97.185**

Students  
(Undergraduate and Graduate)

**635**

Awards and other distinctions

**161.777**

Total attendance of health and education services

**5.182**

Total faculty

**12.518**

Non-academic staff

**90**

Institutes, Colleges, Schools, and other unities (museums, hospitals, orchestras, among others)

# ABOUT

The Institute of Mathematics and Computer Science (ICMC) is a teaching and research unit of the **University of São Paulo (USP)**. It was founded in 1971 and is located at the USP campus in São Carlos, 230 km from the city of São Paulo. It encompasses 20,600m<sup>2</sup> of facilities and has approximately 2,000 students divided into nine undergraduate courses and five graduate programs, with a staff of **124 professors and 101 non-academics**.

ICMC completed 50 years in 2021 and is one of the main Brazilian institutions in the areas of Mathematics, Applied Mathematics, Computing and Statistics, being **recognized worldwide** as a center of excellence regarding production and dissemination of knowledge. It impacts society through training of human resources at undergraduate and postgraduate levels, development of cutting-edge research, and extension of services to the community.

## MISSION

The ICMC's mission is to produce and disseminate knowledge in the areas of **Mathematics, Computing, and Statistics**, train human resources at undergraduate and postgraduate levels, and promote cultural actions, dissemination of knowledge, and social inclusion through engagement in actions that contribute to the social, economic, scientific, and technological evolution of the region of São Carlos, the State of São Paulo, and Brazil.

## VISION

ICMC aims to achieve **world excellence** in teaching and research, decisively contributing to the evolution of knowledge in its areas of activity, training high-level human resources, and supporting the scientific, technological, and social development of the region, the state, and the country.

## VALUES

Commitment to social, economic, scientific, and technological evolution and to the training of qualified professionals; encouragement of teamwork with respect, dedication, and quality; integrity with all agents involved in its activities; ethical conduct, following the principles of human dignity and empathy; **commitment and transparency** in the management of public resources; environmental, economic and social sustainability in its activities.

# UNDEGRADUATE COURSES

	Rating*	Career	Period	Duration	Vacancies
Computer Science	★★★★★	Bachelor's Degree	Full	5 years	85
Computer Engineering**	★★★★★	Engineering	Full	5 years	50
Information Systems	★★★★★	Bachelor's Degree	Evening	4 years	50
Exact Sciences**	★★★★☆	Teaching Degree	Evening	4 years	50
Statistics and Data Science	★★★★★	Bachelor's Degree	Evening	4 years	40
Mathematics	★★★★★	Bachelor's Degree	Full	4 years	30
Mathematics	★★★★★	Teaching Degree	Full	4 years	30
Data Science	not rated	Bachelor's Degree	Full	4 years	20
Applied Mathematics and Scientific Computing	★★★★★	Bachelor's Degree	Full	4 years	20

\*"Guia da Faculdade" ranking (max. 5 stars)

\*\*shared responsibility with another USP school

Other success indicators: employability, insertion in the work field, entrepreneurial training, and creation of startups by ICMC students.

# GRADUATE PROGRAMS

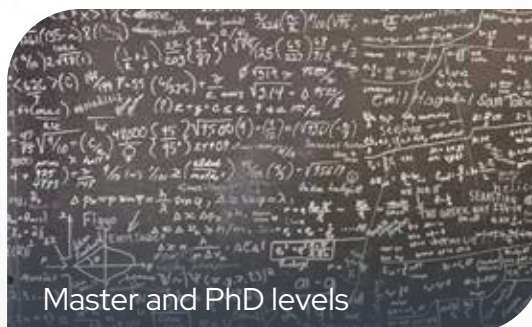


Master and PhD levels

**Computer Science and Computational Mathematics**

Concept 7/7 CAPES

★★★★★★★



Master and PhD levels

**Mathematics**

Concept 7/7 CAPES

★★★★★★★



Master and PhD levels

**Statistics**  
*in partnership with UFSCar*

Concept 5/7 CAPES

★★★★★☆☆



**Professional Master in Mathematics**

Concept 5/5 CAPES

★★★★★



**Professional Master in Mathematics, Statistics, and Computing Applied to Industry**

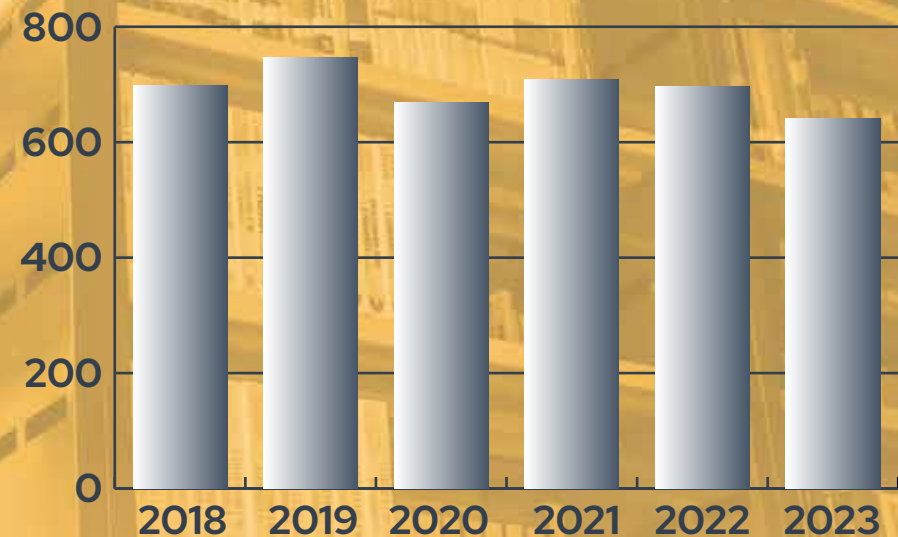
Concept 4/5 CAPES

★★★★☆

Other indicators:  
Nucleation of Research Groups, Awards received, training of professionals for the market etc.

# RESEARCH

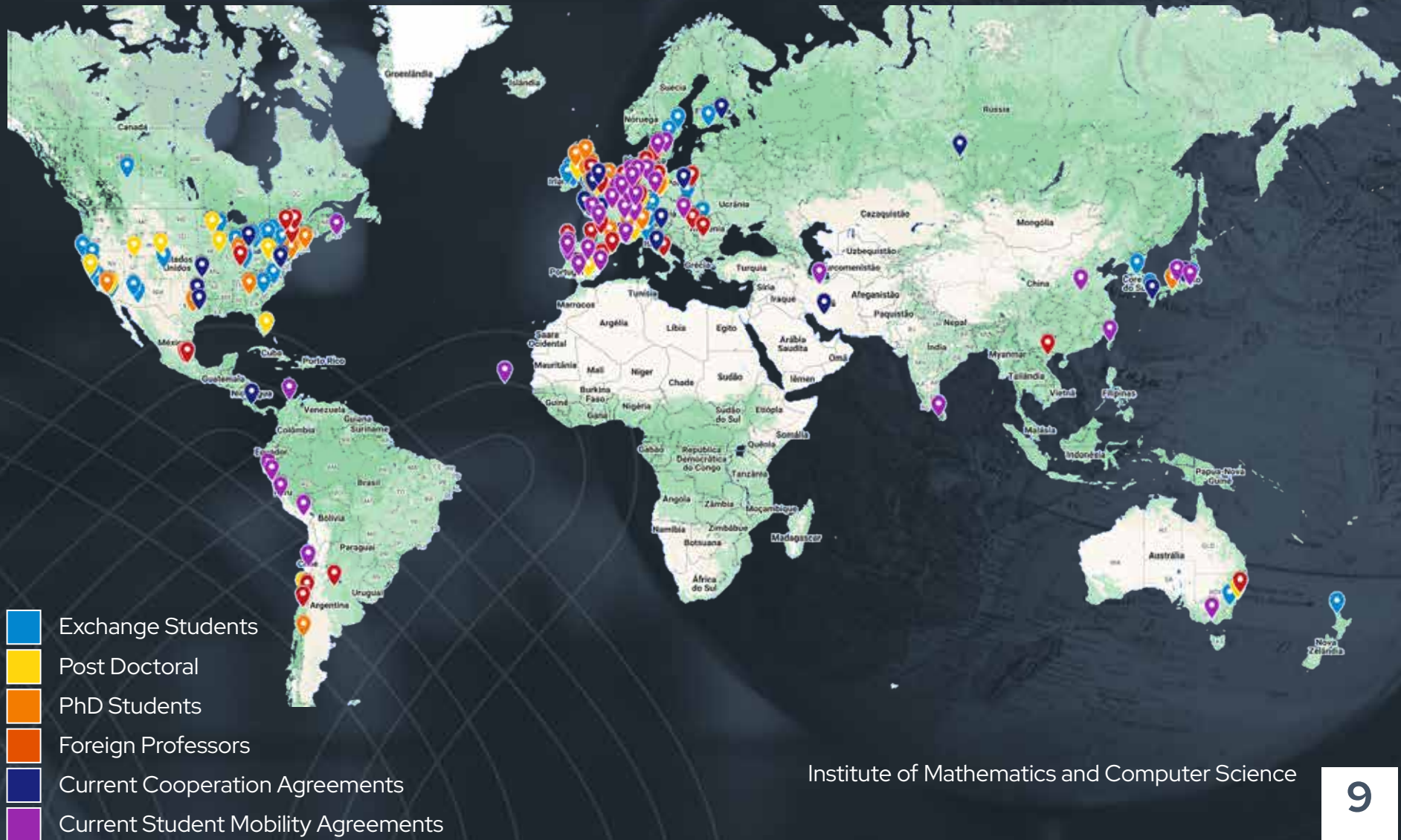
Year	Total number of publications
2018	698
2019	747
2020	668
2021	709
2022	696
2023	641
<b>Total</b>	<b>4.159</b>



## Research Fronts:

- Post Doctoral Programs;
- Research Groups;
- Large projects in partnership with other national and multinational universities and companies;
- Participation in Research, Innovation and Dissemination Centers (RIDCs- CEPIDs-FAPESP), National Institutes of Science and Technology (INCTs CNPq);
- Research Support Centers (NAPs-USP);
- Updated Collections in its Library.

# INTERNATIONAL RELATION

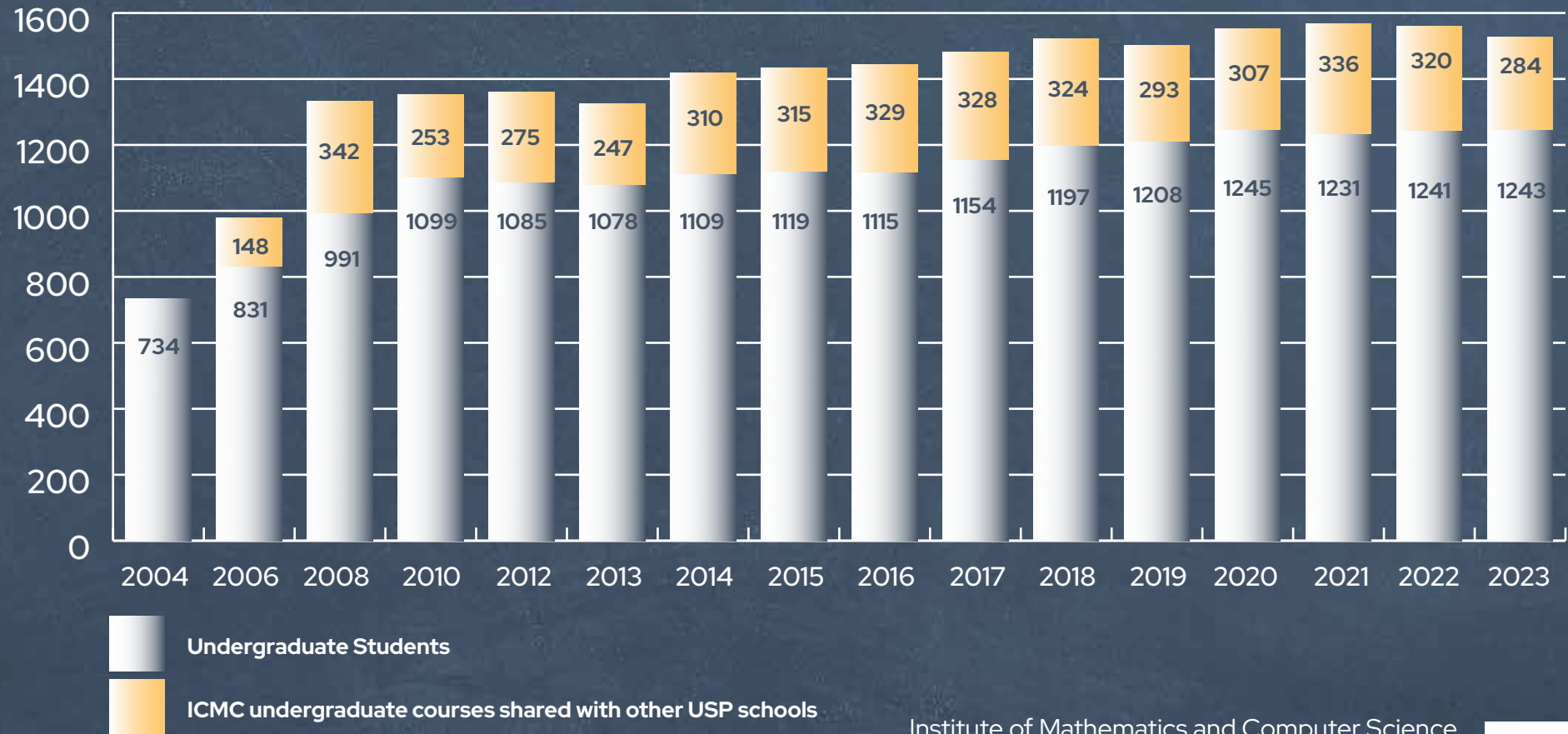


# CULTURE AND EXTENSION

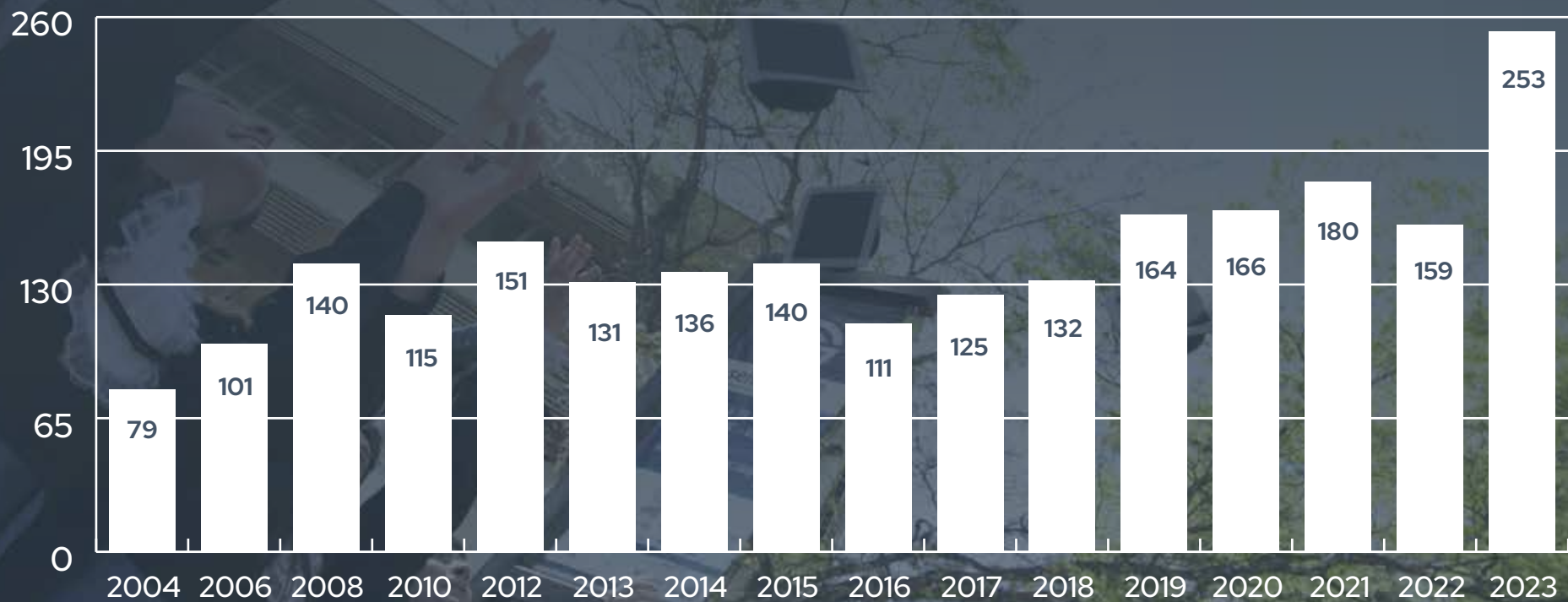
## EXTENSION GROUPS

- ✓ ADA - Projetos em Engenharia de Computação
- ✓ Campanha USP do Agasalho
- ✓ DATA
- ✓ FoG - The Fellowship of the Game
- ✓ GANESH - segurança de informação
- ✓ GELOS - Grupo de Extensão em Livre e Open Source
- ✓ GRACE - Grupo de Alunas nas Ciências Exatas
- ✓ GEMA - Grupo de Estudos da Maratona de Programação
- ✓ ICMC Júnior - empresa júnior do ICMC
- ✓ Liga de Empreendedorismo de São Carlos
- ✓ NEMO - Núcleo de Estudos de Matemática Olímpica
- ✓ PET - Programa de Educação Tutorial
- ✓ Principia - Robôs na Escola
- ✓ Produtech
- ✓ Projeto Aprender
- ✓ Sanca Social
- ✓ Semanálise
- ✓ SIAM Student Chapter
- ✓ USPCodeLab
- ✓ Warthog Robotics
- ✓ WiT - Women in Tech

# UNDERGRADUATE ENROLLED STUDENTS

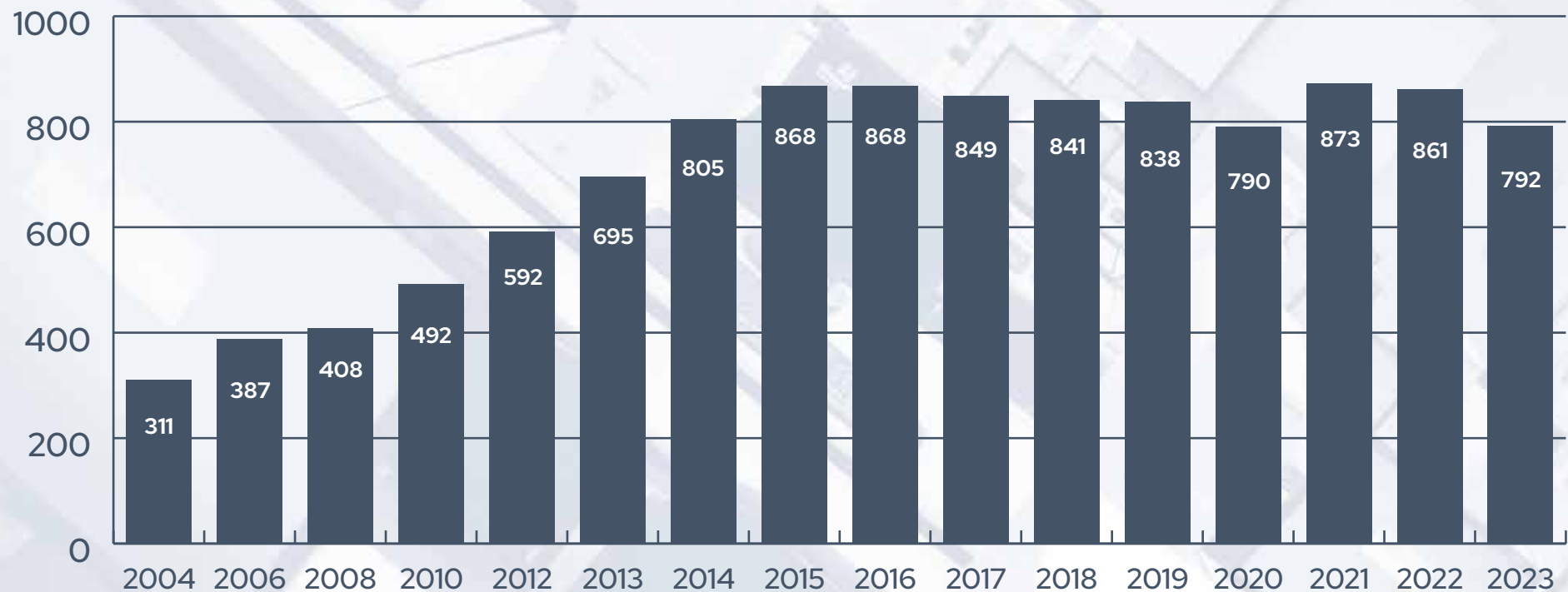


# UNDERGRADUATE GRADUATE STUDENTS



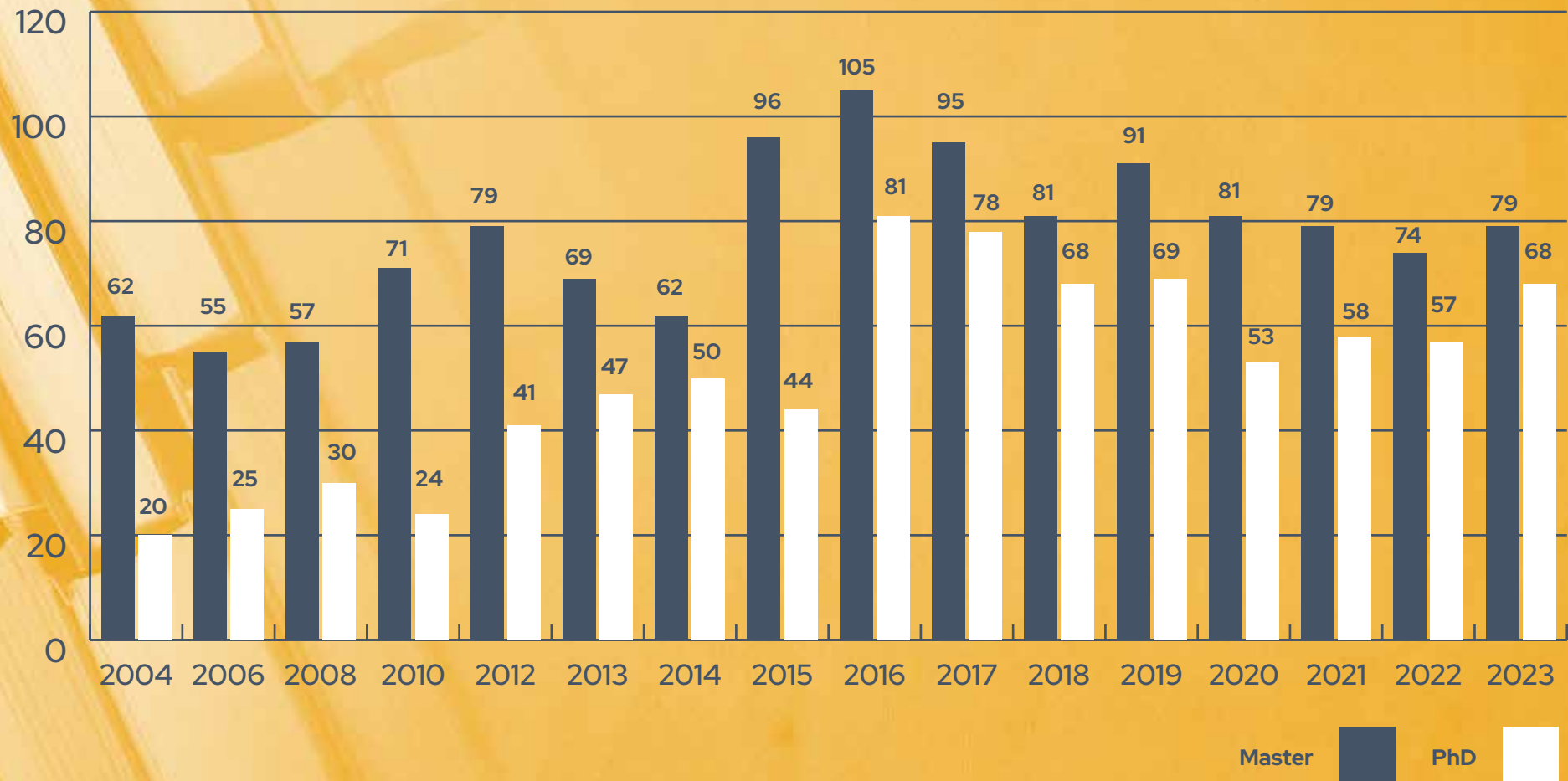
Courses shared with another USP school not included

# GRADUATE ENROLLED STUDENTS



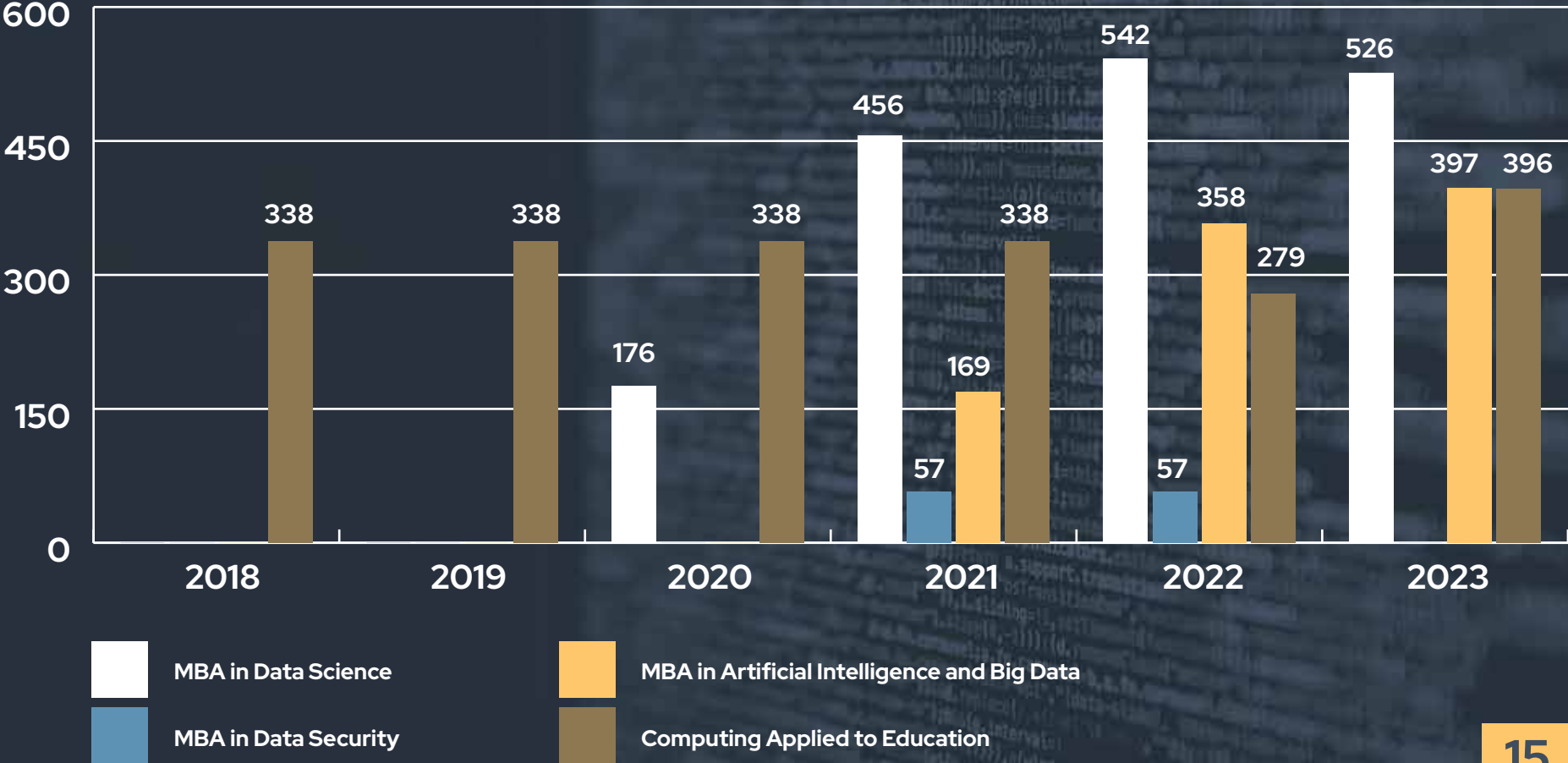
Source: Tycho USP

# GRADUATE GRANTED TITLES



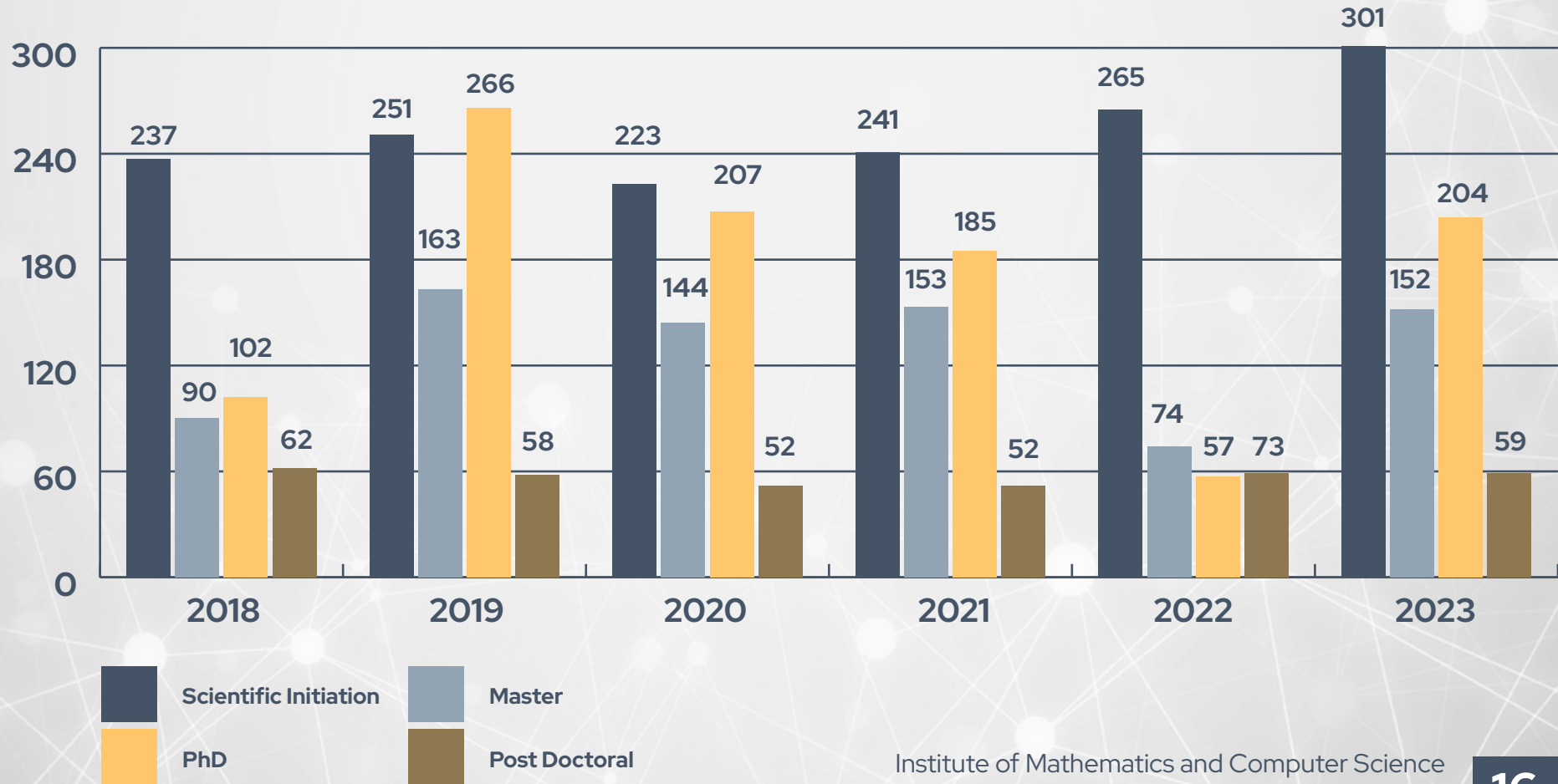
# SPECIALIZATION AND MBAs

## ENROLLED STUDENTS



# GRANTED SCHOLARSHIPS

## SCIENTIFIC INITIATION, RESEARCH, AND GRADUATE DEGREES



# RESEARCH GROUPS

## COMPUTER SCIENCE

- Artificial Intelligence (Bio-inspired Computation)
- Artificial Intelligence (Computational Linguistics)
- Artificial Intelligence (Machine Learning and Data Mining)
- Computation Applied to Education
- Data Bases and Images
- Data Pattern Analysis
- Digital Games
- Distributed Systems and Concurrent Programming
- Embedded and Evolutionary Systems
- Mobile Robotics
- Smart Networks
- Software Engineering and Information Systems
- Visualization, Imaging, and Computer Graphics
- Web and Multimedia Interactive Systems

# RESEARCH GROUPS

## MATHEMATICS

- Algebra and Algebraic Geometry
- Applied Functional Analysis
- Differential Equations, Dynamical systems, and Nonabsolute Integration
- Differential Geometry
- Dynamical Systems and Ergodic Theory
- Linear Partial Differential Equations
- Mathematics Education
- Nonlinear Dynamical Systems
- Singularities
- Topology

# RESEARCH GROUPS

## STATISTICS

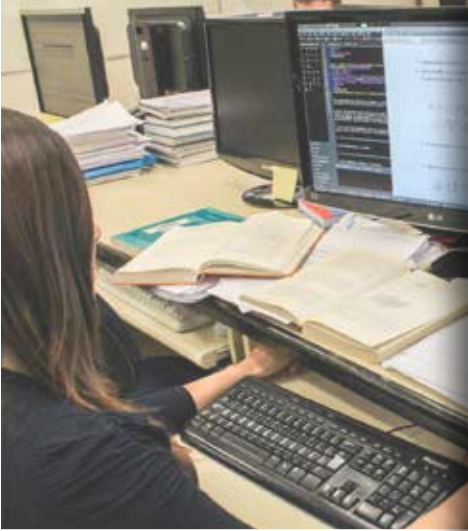
- Data Science and Statistics
- Latent Variable Models
- Risk Assessment
- Statistics



# RESEARCH GROUPS

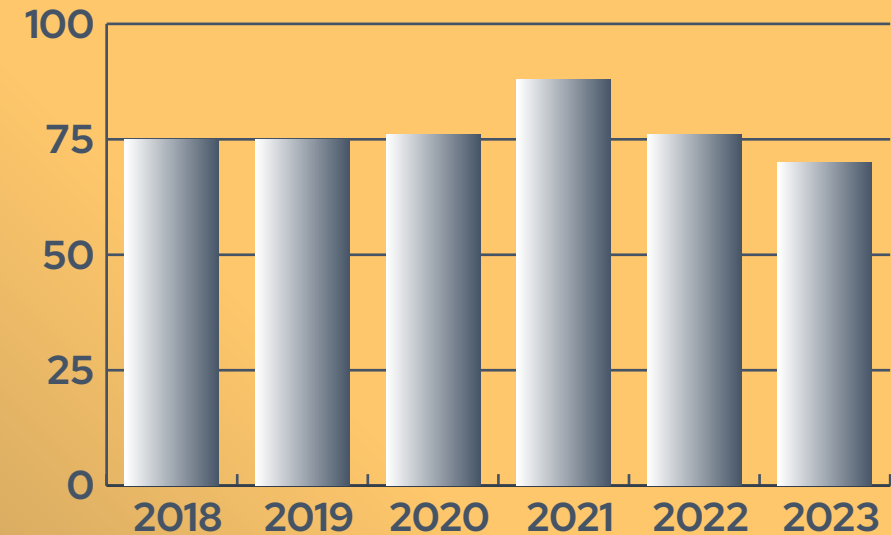
## APPLIED MATHEMATICS

- Applied and Geometrical Analysis
- Complex Systems, Particles and Control
- Computational Fluid Mechanics
- Optimization
- Visual and Geometry Processing



# RESEARCH POST DOCTORAL

Year	Number of projects
2018	75
2019	75
2020	76
2021	88
2022	76
2023	70



# UNIVERSITY EXTENSION

## NUMBER OF EXTENSION COURSES

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
35	37	30	22	35	48	49	57	100	36	41	25	37
0	0	1	1	1	1	1	1	3	2	1	2	2
0	0	0	0	0	0	0	1	1	2	6	6	6

Dissemination courses
  Improvement courses
  Specialization and MBAs

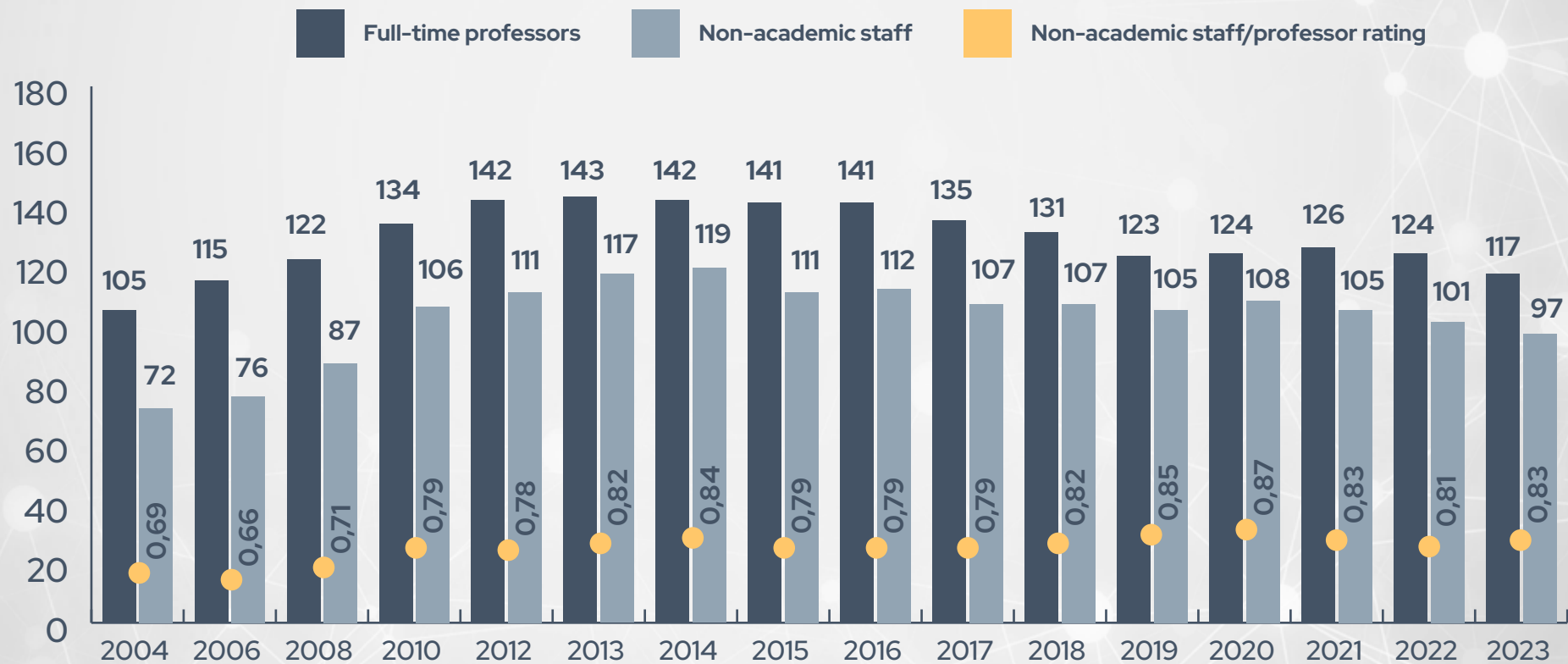
# UNIVERSITY EXTENSION

## NUMBER OF EXTENSION STUDENTS

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
750	900	654	402	842	1.570	1.548	1.686	3.006	2.163	15.063	1.998	3.948
0	0	18	63	48	38	34	39	99	60	2	47	49
0	0	0	0	0	0	0	338	338	514	1.300	1.234	2.432

Dissemination courses
  Improvement courses
  Specialization and MBAs

# HUMAN RESOURCES



Source: Sistema Tycho USP

# BUILDING AREA

Built-up area in m<sup>2</sup>



# THANKS



## DEVELOPMENT

General Administration Coordination  
Events and Communication Office

## DIRECTION

André Carlos Ponce de Leon Ferreira de Carvalho  
Kalinka Regina Lucas Jaquie Castelo Branco



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