IMSA is a cutting-edge research institution that was founded in 2019 with the general support of the Simons Foundation. In the fall of 2022, we were considered for a Frost type of institute by the provost’s committee. Additionally, permanent space arrangements were discussed. During the last ten months we have brought our activities to much higher level. We will briefly report on this.

To streamline the collaboration with mathematical societies in Latin America, IMSA has established IMSA’s Mathematical Societies Collaborative Group.

IMSA-MSCG is a new collaborative effort among leading mathematical societies in the Americas to advance and communicate knowledge in mathematics and the mathematical sciences.

Bernardo Uribe, Ph.D.
Dr. Uribe is a Professor at the Universidad del Norte in Barranquilla, Colombia. He is the Associate Executive Liaison for Global Outreach of IMSA.

Ernesto Lupercio, Ph.D.
Dr. Lupercio is a Researcher at CINVESTAV in Mexico City, Mexio. He is the Senior Executive Liaison for Global Outreach of IMSA.
Jacqueline Godoy Mesquita, Ph.D.
Professor at University of Brasilia, Brazil and President of the Brazilian Mathematics Society. She is a member of the MSCG at IMSA.

Lino Grama, Ph.D.
Dr. Grama is a Associate Professor at University of Campinas, Brazil. He is a member of the MSCG at IMSA.

Paolo Piccione, Ph.D.
Professor and former president of the Brazilian Mathematics Society. He is a member of the MSCG at IMSA.
To present the top achievement of leading mathematicians in Latin America, the institute has organized IMSA’s Frontiers in Mathematics Lecture Series.

Among the speakers were:

Professor Carolina Araujo
Professor Jacqueline Godoy Mesquita
Professor Maria Amelia Salazar

Conference: Elliptic Genera, Spectra and Generalized Geometry
September 11-15, 2023
Lakeside Village Auditorium

The World Academy of Sciences
A Day of TWAS in IMSA
September 13, 2023
Frost Institute for Chemistry and Molecular Science

Speakers:
Dr. Ernesto Lupercio, Dr. Jaqueline Godoy Mesquita,
Dr. Carlos Alberto Aragao de Carvalho Filho and
Dr. Bernardo Uribe.

To present the top achievement of leading mathematicians in Latin America, the institute has organized IMSA’s Frontiers in Mathematics Lecture Series.

Among the speakers were:

Professor Carolina Araujo
Professor Jacqueline Godoy Mesquita
Professor Maria Amelia Salazar
This Spring IMSA has organized several high impact conferences.

- Homological Mirror Symmetry
  January 23-27, 2023
- Periods, Shafarevich Maps and Applications
  January 20-February 3, 2023
- Higher Structures in Algebra, Geometry, Topology and Physics
  February 27-March 2, 2023
- Low Dimensional Topology and Circle-valued Morse Functions
  February 6-10, 2023
- Gauge Theory and Low Dimensional Topology Conference
  April 17-21, 2023

Conference: Quantum Toric Geometry, Generalized Geometries and O-Minimality, May 1-5, 2023

Conference: Higher Invariants in Equivariant and Geometric Topology, May 24-27, 2023
IMSA has had Several Joint Events

**Higher Structures in Algebra, Geometry, Topology and Physics**
February 27-March 2, 2023, Universidad del Norte, Barranquilla, Colombia

**Conference on Complex Geometry in Merida - Alberto 80**
January 9 - 13, 2023, UADY Building, Merida, Yucatan, Mexico

**Future Events**

Geometry Conference 50 years of Hitchin Mathematics and the Americas
December 11-16, 2023

**Plan for Fall 2023**

*Exploring Generalized Geometric Motifs: Semester Program at IMSA*

The program, "Exploring Generalized Geometric Motifs," celebrates traditional mathematical concepts studied in the Americas, the US, and Europe, while exploring new research directions in the nascent quantum toric geometry and the classical field of birational geometry in search of solutions to classical problems.

*Distinguished Lecture Series by Karen Uhlenbek*
December 12, 2023 at 3:00 pm
and
December 14, 2023 at 3:00 pm.
This is the inaugural conference of a new IMSA series of conferences. The goal of these conferences is to demonstrate recent developments in Mathematics and promote Latin American Mathematicians.

Speakers include:
*to be confirmed

3 IMSA Prizes
A committee of world renowned mathematicians will award three prizes to leading Latin American mathematicians.
The deadline for the nomination is:
October 30, 2023 by 12:00 noon (Miami Time).

To submit a nomination please visit:
https://umcas.wufoo.com/forms/mx2poq31ysaac9/

For additional information please visit:
www.imsa.miami.edu/directory/collaborative-group/index.html

Sponsored by the Simons Foundation/IMSA and the University of Miami
Long Term Vision

The Institute of the Mathematical Sciences of the Americas (IMSA), established in 2019, results from a decade-long collaboration between the University of Miami, CINVESTAV, UNICAMPI, and Universidad del Norte. It reflects the recent outstanding progress and global recognition of Latin American mathematics.

IMSA fosters advancing and communicating knowledge in mathematics and the mathematical sciences through interactive dialogues among Latin America, the US, and the global mathematical community. We will summarize our long term goals.
• Located in Miami, IMSA offers an unique opportunity for hemispheric leadership. The current modus operandi will successfully put UM on the map of cutting-edge intellectual hubs.

• It gives UM a massive advantage of attracting top American and international talent on researchers and students level.

• Several expected gifts and grants (20,000,000 USD plus) in the next 5 years will play a transformational role and bring IMSA at the forefront of contemporary mathematics. It will allow the hire of 3-4 leading mathematician, some of them from Latin America, who will serve as role models to current and future generations.

• New cutting edge directions e.g. AI and Computational Astronomy will make IMSA a MATH + institute of the 20 century leading to long-term collaboration with the industry.

• An additional 30,000,000 USD and (3-4 permanent positions) and postdoc will lead to sustainability.
In the next five years we envision IMSA as a Simons Foundation and NSF supported institution with 3 or 4 permanent faculty, numerous post docs and graduate students. In addition to core areas in pure mathematics we plan developing new directions; artificial intelligence, computational applied mathematics with applications to astronomy, health and other sciences. We expect securing substantial support from other foundations and philanthropic gifts. This will be a major step to creating a Frost type of institution.
In addition to existing programs, we will add Miami Vice Lecture Series starting in January 2024. The new name and funding will be discussed.

This lecture series will feature the achievements of modern mathematics and will give prominence to many Latin America mathematicians.

Miami Vice Lecture Series
Miami
January 2024
In addition to the lectures we will publish proceedings using Simons foundation publishing options.

During the Miami Vice conference we will have a dinner with "Friends of IMSA" at UM.

The following prices will be awarded:

- 3 Prizes for best Young Researcher
- 1 Prize for best Female Researcher
- 2 Prizes for Advanced Researcher
- 2 Prizes for best Graduate Student work leading to a IMSA Post Doc positions. These prizes will be designated to US students with Latin American origin.
Ten years from now, we expect IMSA to be a very successful FROST type of an institute, employing six named chairs and six permanent professors. At least half of them will be leading scientist from Latin America. This is a transformational step bringing the institute to the next level. We expect to raise at least 30 million. IMSA will produce highly qualified experts in a variety of mathematical sciences, serving as a bridge between theoretical mathematics and its industry applications. IMSA will report directly to the Provost and achieve relative independence following IDSA model.
We expect that 30 years from now IMSA will be well established and a sustainable institute with a serious endowment. It will be the Institute of Advanced Studies in Latin America.
It took 20 years to F. Hirzebruch to create Max Plank Institute in Bonn with the help of Max Plank gesellschaft. In 1982 Sir Michael Atiyah proclaimed “And so Bonn became the center.” We hope 12-15 years from now Y. Tschinkel sums it up: “And so IMSA became the center.”