

Public Summary

The Mathematical Institute (MI) is the institute for research and education in the mathematical sciences within the Faculty of Science of Leiden University. It organizes a five times [distinguished](#) BSc and MSc in Mathematics and is a key partner in the MSc program on Statistics and Data Science. In addition, it provides a wide range of mathematics courses within the Faculty of Science and Leiden University College in The Hague. Almost all scientific staff members of the MI are involved in both education and research.

The mission of the MI is to *push the frontiers of scientific knowledge by developing and applying high quality mathematics, while offering a wide range of mathematical training in a friendly but challenging environment.*

Mathematics is an essential part of human knowledge and the mathematicians of the MI take pride in their role as keepers of this rich field of science. They are dedicated to push the boundaries of mathematical knowledge and to contribute their experience towards solving problems faced in other sciences, society and industry. Besides their extensive academic efforts, many staff members of the MI work hard to promote mathematical literacy in society at large through a multitude of outreach activities.

The strategy of MI can be summarized in six key aims:

1. *Build a strong and balanced research team.* The world-class quality of the MI's researchers is confirmed by the high-profile grants and prizes obtained in recent years, which include a Spinoza prize, an ERC Advanced grant and several awards in the NWO talent scheme (two Vici's, three Vidi's and four Veni's). The institute's excellent international network and inspiring research environment attracts many talented researchers, which offers considerable flexibility when expanding the research team.
2. *Broaden scope and impact through connections with mathematics partners.* The world-wide network of the MI is maintained both through formal frameworks (such as the [Algant-DOC](#) cotutelle program and the [Networks](#) NWO-Gravitation scheme) as well as numerous partnerships between individual researchers. This attracts large events to Leiden (such as the Equadiff [2019](#) conference) and ensures that many visitors contribute to the lively open atmosphere of the institute.
3. *Connect to other scientific fields, industry and society.* The MI participates in the [OSC](#) NWO Gravity program (Quantum Software Consortium) and has invested in several joint appointments with other fields. As a result, the institute hosts vibrant research groups centered around cryptography, quantum information, mathematical biology, medical statistics and public health. Further contributions to science and society arise through many individual partnerships that are a natural consequence of the institute's highly-relevant mathematical expertise.
4. *Provide an inspiring institutional atmosphere.* The institute is often praised for its open-door policy and its inspiring intellectual climate. It generously provides its researchers with the resources and facilities they need to excel in their research and develop their networks.
5. *Train a new generation of mathematicians.* The BSc, MSc and PhD programs provided by the institute have grown significantly during the past decade. Through intensive hands-on supervision and a wide variety of professional development opportunities, the MI trains the future generation in a customized individual fashion.
6. *Operate from a position of financial strength.* The institute is in an excellent financial position due to its extensive teaching activities and successes in acquiring research grants. The resulting financial flexibility is used to realize the strategic goals outlined above, for example through the recruitment of first-stream PhD candidates to boost the careers of the staff members of the MI.

For the coming years, MI has identified the following strategic priorities:

- Exploit the financial resources of the MI to fill new positions, with an eye towards strategic areas.
- Develop and implement a new management and communication structure to maintain the inspirational institutional atmosphere.
- Formulate a new transparent and robust career policy as an integral part of the new management structure.
- Increase the number of support staff to minimize the administrative burdens placed on researchers, streamline the support for grant applications and expand outreach activities.
- Consolidate the financial strength of the institute with an eye towards shifts in the funding landscape.