

PROGETTATO DA

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## **Mathematics made simple: the partnership between the National Museum of Science and Technology in Milan and Leonardo establishes interactive exposition**

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Press kit, video and pictures are available at: <http://www.museoscienza.org/areastampa/ilab-matematica/>

**Milan, November 20, 2017** - *If man did not know about math, he would not rise a single foot off the ground*, Galileo Galilei said a few centuries ago. In the new interactive Mathematics Lab, developed by the National Museum of Science and Technology in Milan in partnership with Leonardo, the phrase of the famous scientist takes on additional significance. The exhibit laboratory's focus is in fact the fluid dynamics and the mathematical models applied to flight, created from simulation software developed by Politecnico di Milano that will enable visitors to immerse their likeness in a fluid, in a sort of virtual wind tunnel. The software capabilities were tested for the occasion by Elia Viviani, Olympic gold medalist in the Omnium, track cycling, in Rio de Janeiro 2016.

The laboratory, inaugurated today in the presence of the General Manager of the Museum, Fiorenzo Galli, Leonardo Chairman Giovanni de Gennaro and Managing Director Alessandro Profumo, and an illustrious mathematician, Alfio Quarteroni, was created as a permanent space for experimental mathematics. The result is a collaborative project between the Museum and Leonardo: bringing an informal setting for mathematics to museumgoers, using a nontraditional yet scientific approach within a functional space, albeit far from the confines of a research laboratory or classroom.

Augmenting the inauguration of the workshop and the opportunities for a new generation of visitors came Leonardo's final ceremony of the 2017 Innovation Award.

"While always actively presenting educational offerings on behalf of the Museum, math has never had a dedicated laboratory," said **Fiorenzo Galli, General Manager of the National Museum of Science and Technology**. "Now thanks to Leonardo's contribution and our know-how, we can make permanent a fundamental resource in STEM education and open a space for women and men both young and wise, professional and curious, to explore the world from a mathematic perspective. We look forward to welcoming the 4,000 students already booked to participate in the lab activities."

"The realization of this project is the demonstration of Leonardo's commitment to sharing scientific culture and a recognition of the driver of technological transformation of the future: our youth," underlines **Giovanni De Gennaro, Chairman of Leonardo**. "Today Leonardo is at the forefront of technology in Italy, not only in aerospace, defense, security, but also in the protection of cultural heritage, environmental monitoring, automating agriculture using advanced robotics, and the analysis of big data. Meeting and collaborating with the best of our country has to offer validates the social and domestic responsibility of a large company: to contribute together to the growth of Italy and to maintaining and strengthening the technological advantage that makes us competitive in the world amid the increasing challenges of such global competition."

There are many tools, in addition to the virtual wind tunnel, that children, adults, families, and students can try to "explore" with math. Among these, the experimentation of chaos, thanks to the use of the dual pendulum; the use of 3D pens to construct three-dimensional geometric models; real-time analysis of participants' images captured by video camera; and even the mathematical nature of games such as 'scratch and win' and slot machines and what motivates us to play these games of chance. The activities organized by the Museum are always part of free exploration. They are designed to ensure everyone can complete the activity and gain personal knowledge. In each route, it is important to facilitate discussion among the participants to work together to form a well-founded reasoning that leads to the understanding of the experimented activity. The innovative educational approach aims to develop the

skills of this millennium and focus on promoting gender equality. The laboratory concept begins with the desire to distance it from the natural mathmatic environment. The space is informal and allows participants to take a relaxed approach, countering the most prevalent preconceptions about the subject.

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*On the occasion of the opening of the Mathematics i.lab, the Museum offers **special "I Matematti" weekends** dedicated to mathematics for all. In particular on **Saturday, November 25 and Sunday, November 26**, all the activities of the Museum will be dedicated to the theme of Rhythm, to explore our current culture and get involved in musical performances across the various exhibits.*

*The new i.lab Mathematics is an important educational resource, providing specific programs for different audiences (students, teachers, families, researchers, etc.).*

*The Museum, through its Center for Informal Education (CREI), is the Accredited Entity for the Training and Professional Development of Teachers from the Ministry of Education, University and Research.*

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