### کمیته بانوان انجمن ریاضی ایران برگزار می کند:

## هفتمین گرامیداشت

# روز زنان در ریاضیات

THE SEVENTH CELEBRATION OF "WOMEN IN MATHEMATICS DAY"



## Celebrating Women in Mathematics



May 12, 2025

#### **Event Schedule**

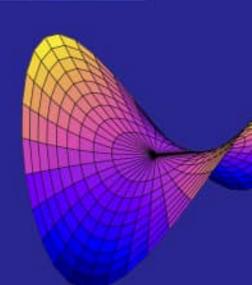


Event	Time
Recitation from the Holy Quran and National Anthem	17:00 - 17:05
Dr. Omid-Ali Karamzadeh (President of the Iranian Mathematical Society)	17:05 - 17:15
Dr. Ashraf Daneshkhah (Chair of the Women's Committee of the IMS)	17:15 - 17:25
Dr. Laura Monk (University of Bristol, UK) "What does a hyperbolic surface look like?"	17:25 - 18:05
Video clip: "Activities of the Women's Committee"	18:05 - 18:10
Dr. Maliheh Hosseini (K. N. Toosi University of Technology) "On linear isometries of absolutely continuous function algebras"	18:10 - 18:50
Presentation of the Maryam Mirzakhani Award	18:50 - 19:00

Access Link to the Event:

https://webinar.usb.ac.ir/may12

Note: Participants are kindly requested to join the session as guests.

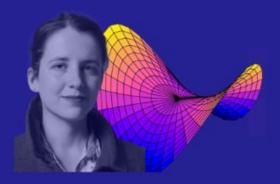




## هفتمین گرامیداشت روز زنان در ریاضیات

۲۲ اردیبهشت ۴۰۱۴ | ۱۹-۱۷





#### Dr. Laura Monk

University of Bristol (UK)

Recipient of the Maryam Mirzakhani New Frontiers Prize (2024)

Title: "What does a hyperbolic surface look like?"

Abstract: The aim of this talk is to describe surfaces of constant curvature. Believe it or not, you already know examples of such surfaces! The sphere of radius 1 is a surface of constant curvature +1. If you take a square and glue together opposite sides, you obtain a flat torus, which has constant curvature 0. The surfaces I will talk about are called hyperbolic: they have constant curvature -1 so, locally, they look like a saddle. They are very intriguing and I will try and give an idea of how we imagine them, thanks to new developments allowed by the beautiful tools and ideas that Maryam Mirzakhani has brought to this research field.

#### Dr. Maliheh Hosseini

K. N. Toosi University of Technology

Recipient of the Maryam Mirzakhani Prize awarded in Iran (2024)

#### Title: "On linear isometries of absolutely continuous function algebras"

Abstract: Let X be a (not necessarily closed or bounded) subset of the real line  $\mathbb R$  with at least two points. For a complex-valued function f on  $X_i$  the total variation  $\mathcal V(f)$  of f is defined to be  $\mathcal V(f):=\sup\{\sum_{i=1}^n|f(x_i)-f(x_{i-1})|:n\in\mathbb N,x_0,x_1,...,x_n\in X,x_0< x_1<...< x_n\}.$  If  $\mathcal V(f)$  is finite, then f is said to be of bounded variation. Moreover, a function  $f:X\to\mathbb C$  is called absolutely continuous if given  $\epsilon>0$ , there exists a  $\delta>0$  such that  $\sum_{i=1}^n|f(b_i)-f(a_i)|<\epsilon_i$  for every finite family of non-overlapping open intervals  $\{(a_i,b_i):i=1,\cdots,n\}$  whose extreme points belong to X with  $\sum_{i=1}^n(b_i-a_i)<\delta$ . We denote by  $AC_b(X)$  the algebra of all absolutely continuous functions of bounded variation on X. In this talk I concentrate on linear norm preserving maps (isometries) between  $AC_b(X)$ -algebras equipped with two natural norms, the sum-norm  $\|\cdot\|_\infty + \mathcal V(\cdot)$  and the max-norm  $\max\{\|\cdot\|_\infty, \mathcal V(\cdot)\}$ , where  $\|\cdot\|_\infty$  denotes the supremum norm. Actually, with the class of isometries we make a connection between the algebraic and the topological structures of  $AC_b(X)$ -algebras.