

Department of Mathematics and Statistics Colloquium Tuesday March 13 AMB 164 4:00 - 5:00 pm

The Legacy of Islamic Math and Science: Why does it Matter in the 21st Century?

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Abstract

Abstract: Some of the most fundamental notions of modern mathematics and science are a legacy of the medieval Islamic civilization. Although current research is far from giving us a full account of their contributions, we know that this legacy includes the number system that we use today, the fields of algebra and trigonometry, the concept of algorithm, foundations of optics, the scientific method, and important research in astronomy that played a crucial role in the Copernican revolution. Yet, these contributions are generally not known, not only in the West but in the Islamic World either. In this presentation, we will highlight a sample of such contributions and briefly introduce a few of the great scientists from that period. We will discuss some of the reasons behind the lack of awareness on this topic and the role of religion in the remarkable rise of mathematical sciences in the Islamic civilization. Given the new understanding and discoveries in the field based on research in the second half of the 20th century, there is a great need to disseminate this information to the general public. We will also describe a major translation project regarding one of the most important mathematics books of the medieval Islamic civilization.

The audience is encouraged to read the following article before the talk recently published in MAA Convergence. https://www.maa.org/press/periodicals/convergence/impacts-of-a-unique-course-on-the-history-of-mathematics-in-the-islamic-world

Refreshments at 3:45