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MEM talk: How Evolving Technological Tools Have Inspired My Mathematical Exploration and Horizon

DATE

Thursday 07.05.2026 11:30 → Thursday 07.05.2026 12:30

LOCAL

Pedro Nunes Lecture Hall, Mathematics Department, FCTUC

Speaker: Wei-Chi Yang (Emeritus Professor at Radford University, US)

Abstract: We have seen universities start eliminating math M.Sc. and Ph.D. programs in the US beginning in 2023. Many wonder how AI will change the way we teach and do mathematics. In this talk, there will be plenty of examples to visit the following areas:

1. How did I get inspired by technological tools in the early 90's?
2. Evolving DGS and CAS software packages have expanded my mathematical horizon.
3. The importance of making mathematics **F**un, **A**ccessible, **C**hallenging, and lastly **T**heoretical.
4. Technological tools can provide critical intuition and motivation to make conjectures and validate them afterward.
5. Geometric approaches provide critical intuition and motivation to learners.
6. Exploratory Activities can be expanded to dynamic scenarios for undergraduate, graduate students, and researchers for further investigations.
7. The audience can ponder if we can expand those discussed questions to 3D and many mathematical disciplines without the help of technological tools.

In an AI environment, students will have access to answers collected from big data. Traditional content can be accessed through social media. Many people wonder if students from some countries, with rote learning, did so well in international competitions, what is the role of technology? However, it is not simply how well students can perform on a test, but how well they can apply what they learn in real life and discover more mathematics when technological tools are adopted.

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