



Contribution ID: 81

Type: **Oral presentation**

## **Fibonacci sequence in interdisciplinary laboratory: from electric nets to elastic springs**

*Thursday 6 July 2023 14:40 (20 minutes)*

An interdisciplinary teaching activity in the Physics laboratory is described here using the hands-on methodology to experiment with high school students, an interdisciplinary learning crunch focused on the Fibonacci sequence. Students were involved in the equivalent resistance calculation of an infinite two-dimensional electrical circuit. In the laboratory, they built a system of resistances and, analogically, a system of springs, and they verified the same symmetric properties by rediscovering the gold number. The students developed content knowledge, critical thinking, collaboration, creativity, and communication skills. The hands-on experience increased students' motivation and participation, making them more involved in the educational process.

### **How would you like to present your contribution?**

Live in Košice (time slot to be allotted based on the programme)

### **Target education level (primary)**

Upper-secondary education

### **Target education level (secondary, optional)**

Lower-secondary education

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**Session Classification:** Hybrid session - later

**Track Classification:** Lab work and experiments in physics education