Razstava / Exibition

# Kamil Arčon in njegov Nihalopis

otvoritev razstave na Kamilov 96. rojstni dan 26. oktobra 2023 ob 13h
*exhibition opening on Kamil's 96th birthday - 26th October 2023 at 1pm*

## v Univerzitetnem središču v Ajdovščini, Univerze v Novi Gorici
*in Research center Ajdovščina, Vipavska 11c, Ajdovščina*

Kamil Arčon je izumil in skonstruiral mehansko napravo "NIHALOPIS", s katerim je v grafični obliki razkril lepoto in simetrijo zelo kompleksnega gibanja sklopljenega nihala vpetega v štirih točkah, ne da bi poznal matematične in fizikalne zakonitosti, ki določajo njegovo gibanje.

Z zelo prodornim intuitivnim vpogledom v zapleten dinamični mehanski sistem in z izjemnim občutkom za simetrijske lastnosti, ki se skrivajo v sicer kompleksnem gibanju sklopljenega nihala, je sistematično preiskal in s svojim Nihalopisom izrisal in ilustriral obsežno serijo različnih trajektorij gibanja tega nihala in jih tudi sistematsko razvrstil v različne simetrijske sklope.

Njegovi rezultati predstavljajo izziv študentom fizike, da za to postavijo teoretični fizikalni model, ki bo zmogel pojasniti celotno bogatstvo različnih trajektorij gibanja takega nihala in z numerično simulacijo gibanja vse te trajektorije tudi reproducirati. Izziv vas tako popelje v globlje poznavanje fizikalnih principov klasične mehanike, kot tudi odkrije lepoto matematičnih simetrij v realnem svetu.
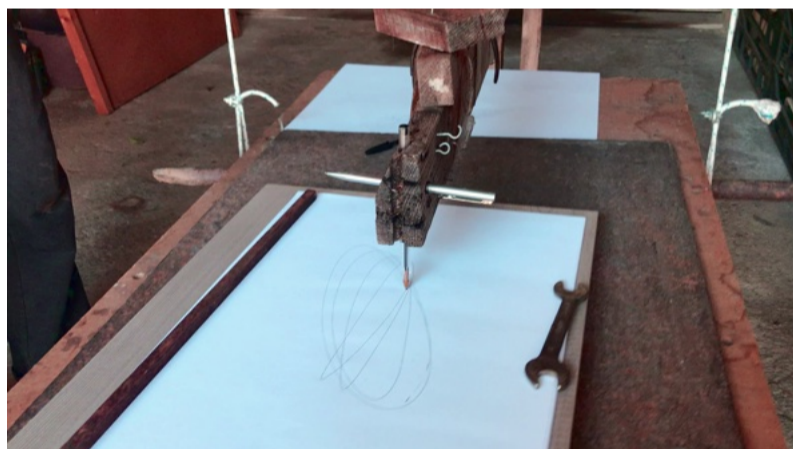
Kamil Arčon invented and constructed a variant of mechanical pendulum "NIHALOPIS", which he used to graphically explore the beauty of the world of symmetries. Fascinated by complex motion of Nihalopis, which represents an interesting example of a coupled pendulum, he systematically charted a series of different trajectories and modes of motion, without any mathematical or physical knowledge.

Kamil's intuitive observations of his complex dynamical mechanical system resulted in a booklet comprising a list of interesting trajectories, which he was able to generate due to his sense and attraction to mathematical symmetries.

His empirical results represent a challenge to the students of physics - to construct a theoretical model of his Nihalopis. A model, which could potentially reproduce the complexity of observed dynamics of Nihalopis. More, the model could potentially be used to create and reproduce the trajectories, which Kamil collected in his booklet. Undoubtedly, modelling of Kamil's Nihalopis does not only brings students to deeper understanding of physical principles of classical mechanics, but also reveals the beauty of mathematical symmetries in real world.

Organizator: Fakulteta za naravoslovje, Univerza v Novi Gorici