

INSTITUTUL DE MATEMATICĂ “SIMION STOILĂ” AL ACADEMIEI ROMÂNE

Conferința lunară

*New (computer friendly) topological invariants for real-valued and
real-multivalued maps; applications to dynamics*

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Miercuri 6 octombrie 2021, ora 13.00

Join Zoom Meeting

<https://us02web.zoom.us/j/86592953371?pwd=bEIDTnBVRXRVOWQrbzc1Njg4NzV4dz09>

Meeting ID: [865 9295 3371](#)

Passcode: 095163

Abstract: The invariants proposed are configurations of points with multiplicity in the Complex plane or Real line, equivalently polynomials. They:

- (1) can be calculated with arbitrary accuracy by computer implementable algorithms,
- (2) refine basic topological invariants,
- (3) give relevant information about the elements of a large class of dynamics.

They can be introduced in the context of

- (i) graph representations
- (ii) measure theory
- (iii) analysis on manifolds and stratified spaces.

This presentation discusses only aspect (ii).

This presentation is a summary of my ongoing work on *Computational topology for data analysis and dynamics*.