



**Politecnico
di Torino**

Dipartimento di Scienze
Matematiche "G. L. Lagrange"



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Scienze Matematiche
G. L. Lagrange

COLLOQUIUM

Il giorno **Lunedì 10 giugno 2024**, alle ore **16:00**, in **Aula Buzano**, e in streaming a questo [link](#), il

Prof. Leonid BUNIMOVICH

del Georgia Institute of Technology

terrà una conferenza dal titolo

Mechanisms of chaos

Abstract. One of the major achievements of the 20th century science was understanding that purely deterministic systems may behave similarly to purely random (stochastic) systems. This area was loosely called a chaos theory.

Because, starting from the very beginning, the statements of this theory contradicted uniformly accepted in scientific (even physics) community ideology and intuition convincing results must be rigorously proved.

Essentially these results deal with introducing new classes of dynamical (deterministic) systems with more and more “surprising” behavior. I will describe major ideas and results in the area including some latest (once again, “surprising”) results.

The exposition will be visual and elementary with very few formulas used. Math and physics students are very welcome.

Bio. Prof. Bunimovich is Regents' Professor, in the School of Mathematics of Georgia Institute of Technology. He obtained his PhD in “Probability Theory and Mathematical Statistics” from Moscow University, and later obtained the title of Doctor of Sciences in “Theoretical and Mathematical Physics” from the Institute for Theoretical Physics of the Academy of Sciences of USSR. Before moving to he US, he has been employed in various institutes in the USSR, in Poland, and in Germany, and he eventually landed at Georgia Tech, where he is involved in various departments (School of Biological Sciences, School of Mathematics). He has been director of the Southeast Applied Analysis Center, and is currently director of the Applied & Biological contemporary Mathematics Program. His interests span the fields of Dynamical Systems, Ergodic Theory, Statistical Mechanics, and many other subjects, in which he has obtained fundamental results. He has published sever books, and edited the series and volumes on Dynamical systems, which our library proudly owns. Among his long list of papers, let us simply mention those on the ergodic properties of nowhere dispersing billiards, and those coauthored with Sinai on dispersive billiards, that are historic pieces of work.

Alla conferenza seguirà un coffee break.