CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

VIRTUAL COLLOQUIUM

Friday, October 23
3:00 – 4:00 PM
https://ccsu.webex.com/meet/gotchev

DIMENSIONAL ANALYSIS AND SELF-SIMILARITY

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Abstract: In this talk we will start with dimensional analysis and then proceed to the discussion of scaling laws and self-similarity. The word "self-similar" means that a phenomenon reproduces itself on different time and/or space scales. With a few simple examples we will show how construction of self-similar solutions reduces to solving the boundary value problem for ordinary, not partial, differential equations. We will also discuss self-similar solutions as intermediate asymptotics.

The talk is intended for a wide audience. Knowledge of the basics of differential equations is desirable. Students are welcome and encouraged to attend.