Math colloquium series Dec. 2, 2021 | 12:30PM-1:30PM | On Zoom

Please go to https://math.uccs.edu/research/colloquia to register for the talk.



Rational Solutions to the KPI Nonlinear Wave Equation and Their Connection to Partitions of Integers

I will give a brief introduction to the field of nonlinear waves and the origins of the Kadomtsev-Petviashvili (KP) I equation. I will then investigate a class of two-dimensional, real, non-singular, rational solutions of the KP I equation. These solutions are termed as the N-lump solutions because they are characterized by N distinct peaks interacting nonlinearly like 2-D solitons. In this talk, Michael will describe a classification scheme of the KP N-lump solutions based on partition of integers and the related Young diagrams.

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