TEMPLE UNIVERSITY

Department of Mathematics

Analysis Seminar

Zoom meeting

Monday, April 26 2021, 2:30 p.m.

The second boundary value problem for a discrete Monge-Ampere equation

by Gerard Awanou

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Abstract: In this work we propose a natural discretization of the second boundary condition for the Monge-Ampere equation of geometric optics and optimal transport. It is the natural generalization of the popular Oliker-Prussner method proposed in 1988. For the discretization of the differential operator, we use a discrete analogue of the subdifferential. Existence, unicity and stability of the solutions to the discrete problem are established. Convergence results to the continuous problem are given.