

Lattice RDEs, mirroring, and an interesting functional equation

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This is the joint work with J. Hesoun and P. Stehlík (University of West Bohemia, Pilsen). We provide a complete characterization of equivalence classes of unbounded asymmetric stationary solutions of lattice reaction-diffusion equations which diverge in either one, or both spatial tails to infinity. Our main tool is an iterative (functional) mirroring technique which could be applicable to other problems related to lattice equations. Specifically, we reveal a natural relationship of lattice equations with an interesting functional equation which involves an unknown function and its inverse.

References

- [1] Hesoun, J., Stehlík, P., Volek, J. *Unbounded Asymmetric Stationary Solutions of Lattice Nagumo Equations*. Qual. Theory Dyn. Syst. 23, 50 (2024).