

## Graphs, symmetries and orderings in dynamical systems

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Modern dynamical systems provide many connections to discrete structures and combinatorics. In this talk, we will outline why these relationships are natural both from the mathematical as well as from the applied point of view. We focus on two perspectives. First, we discuss the role of graph characteristics on the properties of specific discrete-space dynamical systems. Next, we investigate the intricate symmetries and orderings of solutions of complex and chaotic dynamical systems. The interplay between traditionally separate mathematical fields implies that both areas offer large number of open problems at basic level of understanding. The talk is intended for audience without detailed knowledge of advanced and complex dynamical systems.

### References

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