

Short Course

دوره کوتاه مدت درسی

TITLE **Coalgebras and Modal logic: One-step at a time**SPEAKER **Fatemeh Seifan**TIME **Thursday, April 25, 2019, 14:00 - 17:00**VENUE **Lecture Hall 1, Niavaran Bldg.**

## SUMMARY

Coalgebraic modal logic is a general framework for modal logics whose semantics goes beyond the standard relational world. Examples include neighbourhood logic, probabilistic logic and game logic.

In this talk, I will first introduce syntax and semantics of coalgebraic modal logic (for both nabla and predicate lifting approaches). Then I will define the one-step fragment of this logic, which contains formulas with exactly one layer of modalities. Following this paradigm, we discuss settings where logical properties like soundness, completeness and interpolation at the one-step level transfer to the level of the full coalgebraic (fixpoint) modal calculus.

This talk is based on joint works with S. Enqvist, D. Pattinson, L. Schroder and Y. Venema.