

# Lecture 8 – Deterministic PDA

NTIN071 Automata and Grammars

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*\* Adapted from the Czech-lecture slides by Marta Vomlelová with gratitude.  
The translation, some modifications, and all errors are mine.*

## Recap of Lecture 7

- Pushdown automaton: extend an  $\epsilon$ -NFA with a stack memory (potentially infinite), pop the top symbol, decide based on  $(q, a, X)$ , can push a finite string of stack symbols
- Acceptance by final state  $L(P)$  and by empty stack  $N(P)$ , conversion between the two options
- Pushdown automata accept exactly context-free languages (constructions: CFG to PDA and PDA to CFG)