

# Generalized LR parsing

Tomáš Laščák, xlasca00@stud.fit.vutbr.cz

Michal Malaník, xmalan01@stud.fit.vutbr.cz

## Abstract

Our presentation brings an introduction on generalized LR parsing. Generalized deterministic parsers are deterministic parsers extended with a breadth-first search mechanism so they will be able to operate with tables with conflicting entries. There are many types of generalized deterministic parsers and this presentation briefly describes LR parser.

We can make a very powerful parsers for LR grammars, most languages are in fact LR, but most grammars are not. The LR grammars for these LR languages are hard to construct. But from the practical view are most usefull grammars almost LR, which means that their automata have only few inadequate states. Research of these automata brings us to generalized LR parsing.

The main goal of our presentation is to introduce the basic GLR parsing algorithm.

## Based on

Grune, D., Jacobs, C.J.H.: *Parsing Techniques: A Practical Guide* (2nd Edition). Springer, 2008, ISBN 978-0-387-20248-8.