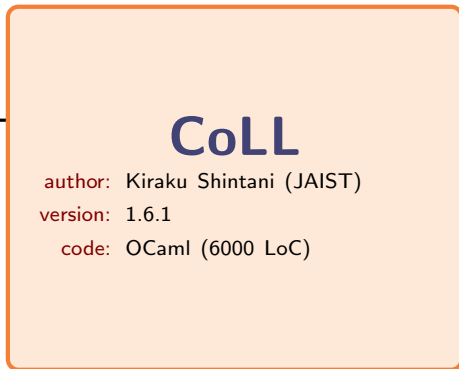


CoLL: Commutation Tool for Left-Linear TRSs

$\{(\mathcal{R}, \mathcal{S})\}$



CoLL

author: Kiraku Shintani (JAIST)

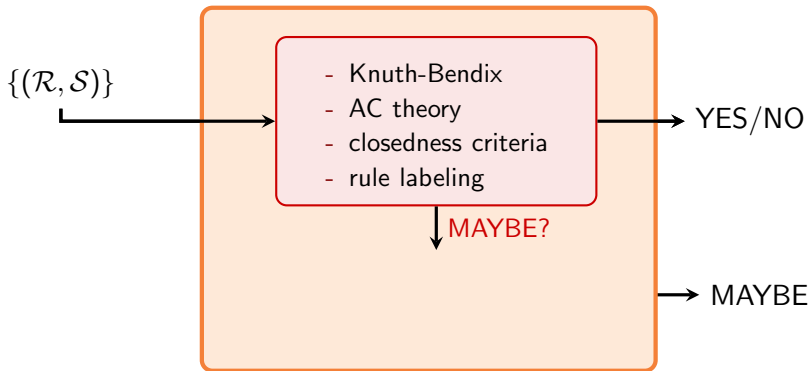
version: 1.6.1

code: OCaml (6000 LoC)

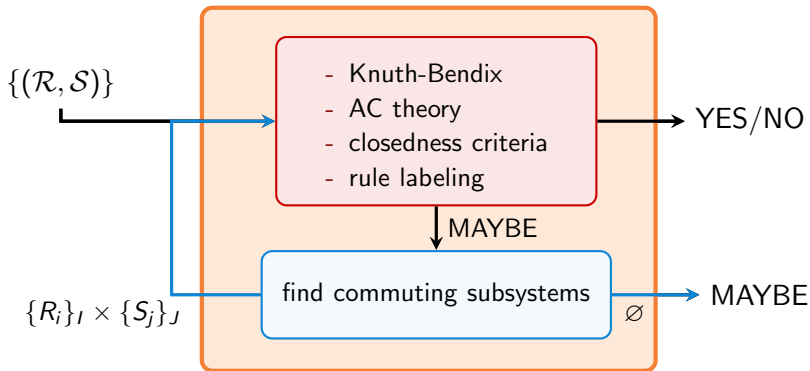
→ YES/NO

→ MAYBE

CoLL: Commutation Tool for Left-Linear TRSs



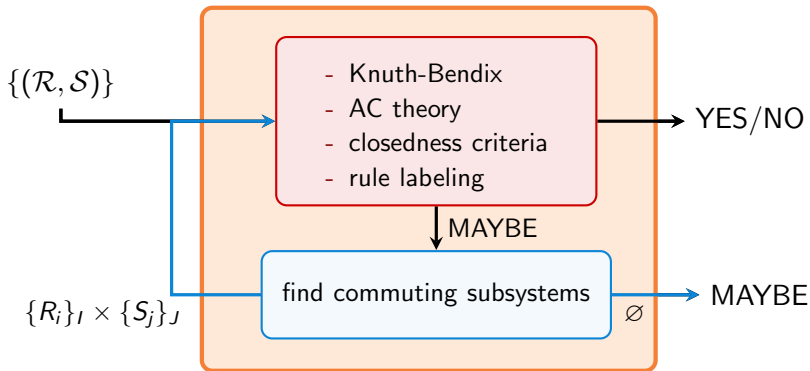
CoLL: Commutation Tool for Left-Linear TRSs



- based on Hindley's commutation lemma:

$\bigcup_i \mathcal{R}_i$ and $\bigcup_j \mathcal{S}_j$ commute if \mathcal{R}_i and \mathcal{S}_j commute for all i, j

CoLL: Commutation Tool for Left-Linear TRSs



- based on Hindley's commutation lemma:
 $\bigcup_i \mathcal{R}_i$ and $\bigcup_j \mathcal{S}_j$ commute if \mathcal{R}_i and \mathcal{S}_j commute for all i, j
- left-linearity is often essential for commutation

What's new?

- fixed minor bug for application of asymmetric criterion
 - × \mathcal{R} and \mathcal{S} commute if $P(\mathcal{R}, \mathcal{S})$ holds
 - ✓ \mathcal{R} and \mathcal{S} commute if $P(\mathcal{R}, \mathcal{S})$ or $P(\mathcal{S}, \mathcal{R})$ hold