



DEPARTMENT OF PHILOSOPHY, LINGUISTICS AND THEORY OF SCIENCE

Type Theory with Records: From Perception to Communication, 7,5 higher education credits

Type Theory with Records: Från perception till kommunikation, 7,5 högskolepoäng

Third Cycle/Forskarnivå

Confirmation

The course syllabus was confirmed by the Department of Philosophy, Linguistics and Theory of Science on 2018-01-25 to be valid from 2018-01-25.

Entry requirements

General and specific entry requirements for third-cycle education according to Admissions Regulations and the general syllabus for the subject area at hand.

Learning outcomes

After completion of the course the doctoral student is expected to be able to :

Knowledge and understanding

- demonstrate enhanced knowledge and understanding of the subject areas of the course,
- discuss in detail key theories and issues in one or more of the subject areas of the course,

Skills and abilities

- offer a detailed analysis of issues, lines of arguments or methods from the literature,
- select and define issues, lines of arguments or methods from the literature that are suitable for a short critical essay or a conference paper,

Judgement and approach

- critically discuss, orally or in writing, questions, lines of arguments or methods that are used in the literature,
- critically assess the validity of the studied lines of argument.

Course content

The course introduces TTR, a Type Theory with Records, as a framework for natural language grammar and interaction. We are taking a dialogical view of semantics. The course covers the formal foundations of TTR as well as TTR accounts of perception, intensionality, information exchange, grammar (syntax and semantics), quantification, modality and other linguistic phenomena. It also covers the relation between TTR and other type theories for natural language semantics, as well as recent extensions and applications of TTR.

Teaching format

The course will include both lectures and exercises related to the readings, as well as workshop-style discussions and presentations. Participation in lectures and discussions is mandatory.

Primary language of instruction:

English

Assessment

Written or oral examination.

Grades

The grading scale comprises Pass (G) or Fail (U).

Course evaluation

The course is evaluated by way of a written questionnaire or oral feedback.

Additional information

Bibliography is appended.

Bibliography (preliminary and incomplete)

Chatzikyriakidis, S. and Luo, Z. (2017): *Modern Perspectives in Type-Theoretical Semantics*. Springer.

Chatzikyriakidis, S. and Cooper, R. (to appear): *Type Theories for Natural Language Semantics*. Oxford Research Encyclopedia of Linguistics. To appear online.

Cooper, R., & Ginzburg, J. (2015). Type theory with records for natural language semantics. In Lappin and Fox (eds.), *Handbook of Contemporary Semantic Theory*, pp. 375-407.

Cooper, R. (in prep). Type theory and language: From perception to linguistic communication, draft of book chapters. <https://sites.google.com/site/typetheorywithrecords/drafts>.

Cooper, R., Dobnik, S., Larsson, S., & Lappin, S. (2015). Probabilistic type theory and natural language semantics. *LiLT (Linguistic Issues in Language Technology)*, 10.

Dobnik S., R. Cooper, and S. Larsson (2013): Modelling language, action, and perception in Type Theory with Records. In D. Duchier and Y. Parmentier, editors, *Constraint Solving and Language Processing: 7th International Workshop, CSLP 2012, Orléans, France, September 13–14, 2012, Revised Selected Papers*, volume 8114 of *Lecture Notes in Computer Science*, pages 70–91. Springer Berlin Heidelberg, 2013.

Dobnik, S. and R. Cooper. Interfacing language, spatial perception and cognition in Type Theory with Records. *Journal of Language Modelling*, 5(2):1–29, 2017.

Larsson, S. (2013). Formal semantics for perceptual classification. *Journal of logic and computation*, 25(2), 335-369.