

Concept Types and Frames in Language, Cognition, and Science (CTF'12)

International Interdisciplinary Conference
Düsseldorf (GER), August 22–24, 2012

<http://www.sfb991.uni-duesseldorf.de/concept-types-and-frames-in-language-cognition-and-science/>

DFG Coordinated Research Centre CRC 991/SFB 991
“The Structure of Representations in Language, Cognition, and Science”

<http://www.sfb991.uni-duesseldorf.de/en/sfb991/>

Aims and scope

A sequel to CTF'07 and CTF'09, CTF'12 is the third interdisciplinary conference to contribute to the development of a general frame theory of human concepts. The conference explores the application of frames in linguistics and other sciences. It discusses foundational issues for the development of a theory of frames from the perspectives of general and computational linguistics, mathematics, cognitive psychology, cognitive neuroscience, ontology, philosophy of mind, and philosophy of science.

Invited speakers

t.b.a.

Frames

CTF'12 explores fundamental aspects of a formal theory of frames understood as recursive attribute-value structures with functional attributes. The aspects include representation and model-theoretic interpretation, attributes and value types, and appropriate frame structures for different types of concepts. A special focus will be on dynamic aspects of frame theory: modeling dynamic frame components for event and process frames; exploring operations on frames such as type shifts and frame composition.

Cognition

CTF'12 explores empirical evidence for and consequences of the frame approach. It addresses the distinction of types of concepts, in particular relational and functional nominal concepts. Major topics include the grounding of concepts in the sensory-motor system and dynamic aspects of concept formation.

Language

CTF'12 explores the application of a formalized theory of frames at various levels of linguistic description: lexical semantics of the different conceptual types of nouns and verbs, deep lexical decomposition, semantics of word formation, the syntax-semantics interface, syntactic and semantic composition, and anaphora and coherence in discourse.

Science

CTF'12 explores the applications of the frame approach in various fields of institutional categorization: e.g., the evolution of the frame notion in the history of philosophy; scientific frames and paradigm shifts; frames for legal concepts; frames in applied ontology; a frame model of the mind; and frame description of psychiatric disorders.

Important dates

Submission of abstracts (1000 words): March 15, Notification of acceptance: May 30

Programme committee

Sebastian Löbner (general chair), Rainer Osswald, Gottfried Vosgerau

Organizational committee

Dorothea Brenner, David Hommen, Timm Lichte, Daniel Schulzek

Topics for the CTF12

Language

noun types and determination

- definiteness and indefiniteness
- possession
- usage
- processing
- grammaticalization

conceptual shifts of noun meanings

- shifts and coercion
- diachronic shifts

decompositional frames for verbs and the syntax-semantics interface

- verb classes in terms of frame types
- verbal concepts and linking
- construction-based decomposition of verb meanings
- aspectual composition

decompositional frames for nouns

- frame analysis of legal terms
- affordance attributes in noun frames and qualia

syntactic and semantic composition

- nominal concept types in the theory of semantic composition
- semantic composition in terms of frames
- syntax-driven frame composition

frames in the semantics of word-formation

- nominal compounding as frame combination
- deverbal nouns as the result of frame transformation

frames in discourse

- frames and associative anaphora
- the role of frames in discourse coherence

Science

concepts

- emergence of the modern frame notion of concepts
- architecture of the mind
- the role of function in object categorization

frame analysis in institutional categorization

- frames and paradigm shifts
- frame analysis of legal concepts
- frame analysis of psychiatric disorders

- frame analysis in other scientific fields

concept types and frames in ontology

- attributes in ontology
- relations and functions in ontology
- formal approaches to ontology using functional relations

Cognition

embodiment of concepts

- emergence of the modern frame notion of concepts
- grounding of verb meanings in the sensory-motor system
- affordances and the grounding of noun meanings in the sensory-motor system
- common coding and simulation
- frames and conceptual processing

types of concepts

- empirical evidence for different kinds of concepts
- cognitive representation of dynamic concepts, in particular verb meanings

neurocognition

- frames and conceptual processing
- neural correlates of attributes and frames
- computational modelling of concept formation

Frames

elements of frame theory

- modelling the dynamics of verb meanings
- modelling general operations on frames
- modelling frame composition

frame-related spaces

- mathematical properties of value spaces
- mathematical properties of attribute spaces
- mathematical properties of frame spaces

large frame systems

- design and implementation