

# I. Sachbericht

## I.1 Überblick über die Forschungsarbeit

We here supply a brief overview of the areas of research within which the work of IFOMIS is currently concentrated. IFOMIS has since its foundation in 2002 established a solid international reputation. We have received significant further funding for our research endeavours from the European Union and the Volkswagen Foundation; we have sponsored the establishment of the European Centre for Ontological Research, which has led in turn to the founding of further such centres in Japan and the United States; and we have established close working partnerships for example with the Gene Ontology Consortium, the European Bioinformatics Institute, and the Swiss Institute of Bioinformatics, as well as with the Deutsches Forschungszentrum für Künstliche Intelligenz in Saarbrücken. Our publishing endeavours continued to focus primarily on presentations at refereed conferences as part of our attempts to establish the new discipline of biomedical ontology among the relevant communities of researchers. As of 2005, however, we are focusing more systematically on publications in refereed journals. Further details are available at <http://ifomis.org>.

### **Forschungsschwerpunkte der IFOMIS Wissenschaftler**

*Thomas Bittner*

Formal ontology, biomedical ontology, spatio-temporal ontology, computational ontologies. Developing axioms for parthood and containment relations in bio-ontologies, and formal theories to support spatial reasoning and representation in the bio-medical domain (jointly with M. Donnelly).

*Werner Ceusters*

Referent tracking for Electronic Health Records (EHRs) based on Basic Formal Ontology. Main endeavour: expanding EHRs to comprehend genomics information (EHR+G) in cancer diagnosis and treatment. The general objective of EHR+G is to make better use of both the individual-patient-related data residing in EHRs and the knowledge available in biomedical and bioinformatics databases to improve the diagnosis, treatment and post-treatment care of patients with cancer or genetic diseases leading to cancer. It will do this by linking EHR systems to biomolecular databases on the basis of a common ontology.

*Maureen Donnelly*

Formal ontology, spatio-temporal ontology, biomedical ontology, including work on containment relations in anatomical ontologies and on a formal theory for spatial representation and reasoning in the biomedical domain (joint work with T. Bittner and C. Rosse).

*Matthew Fielding*

Formal ontology, epistemology, controlled vocabularies, natural language processing, ontology development, ontology integration; including joint work with D. Marwede on the epistemic/ontological divide in clinical radiology and on radiographic ontology development.

*Pierre Grenon*

Formal ontology, universals, qualities, relations, ontological engineering, formalization. Collaboration with the Laboratory for Applied Ontology in Trento on aligning ontologies the BFO and DOLCE, especially in regard to their treatment of space and time.

*Boris Hennig*

Philosophy of biology, teleology, biological functions, types and tokens, prototypes, processes and actions, philosophy of time.

*Ingvar Johansson*

Ontology, universals, functions, quantities, parthood, truth. Currently working on supervenience, and on a theory of emergent properties as a basis for reasoning about natural phenomena.

*Anand Kumar*

Biomedical ontologies, Electronic Health Records, biomedical informatics, medical informatics, knowledge representation. Currently working especially on ontologies of clinical pathologies in the cancer domain.

*Dirk Marwede*

Application of ontological principles to the medical domain, medical imaging and ontology, medical terminology in radiological reports, epistemology and ontology in clinical radiology lexicons, levels of granularity in the representation of the biomedical domain.

*Katherine Munn*

Ontology, biological functions, philosophy of biology, medical informatics. Working on various aspects of quality assurance for the Gene Ontology, and on the relations between biological functioning and survival.

*Daniel Novotny*

Granularity in biology, naturalism, foundational ontology, semantics. Working with A. Kumar and others on a carcinoma classification ontology for clinical bioinformatics and with D. Marwede on an ontology of lung cancer.

*Barry Smith*

Formal ontology, biomedical ontology; working with philosophers, logicians, biologists, medical researchers, and biomedical informaticians on a range of projects designed to support integration of knowledge in the life sciences, especially knowledge pertaining to entities existing at different levels of granularity, from molecules to whole organisms.

*Lowell Vizenor*

Formal ontology, philosophy of biomedicine, philosophy of language, Electronic Health Record, and the ontological analysis of the HL7 Reference Information Model.

## I.2 Vorträge und Konferenzen

### I.2.1 Vorträge ausserhalb IFOMIS

Dec. 27-30, 2004	Barry Smith: The Hole Story	American Philosophical Association, Boston, USA
Dec.14, 2004	Chris Menzel: Haecceities and Modal Particularism	Institut für Philosophie, Saarland University, Saarbrücken
Dec. 11, 2004	Daniel Novotny: Problems of Aquinas's Material Theory of Individuation of Substances	Societa Internazionale Tommaso d'Aquino, Prague, Czech Republic
Dec. 9-11, 2004	Barry Smith: Truthmaking as a Bridge between Thought and Reality	Truthmakers: Twenty Years After, Aix-en-Provence, France
Dec. 2, 2004	Barry Smith: On Relations in Biological Ontologies	Bioinformatics Group, RIKEN Genomic Science Center and Tokyo Institute of Technology, Japan
Nov. 29-30, 2004	Barry Smith: Ontology and Its Applications (keynote lecture)	Interdisciplinary Ontology Forum, Keio University, Tokyo, Japan
Nov. 26, 2004	Werner Ceusters: Realist Ontology for Electronic Health Records	EUROREC 2004, Brussels, Belgium
Nov. 25, 2004	Werner Ceusters: Ontology and Semantic Interoperability of Systems Sharing Biomedical Information	EUROREC 2004 satellite workshop, Brussels, Belgium
Nov. 25, 2004	Barry Smith: The Future of Clinical Bioinformatics: Overcoming Obstacles to Information Integration	EUROREC 2004 satellite workshop, Brussels, Belgium
Nov. 25, 2004	Anand Kumar: Oncology Ontology and Clinical Bioinformatics	EUROREC 2004 satellite workshop, Brussels, Belgium
Nov. 16, 2004	Barry Smith: From Knowledge Representation to Reality Representation	Applied Ontology Colloquium, Ontology Works Incorporated
Nov. 13-14, 2004	Barry Smith: Formal Ontology and Biomedical Informatics	Conference on Medicine and Metaphysics, University at Buffalo, USA
Nov. 13-14, 2004	Katherine Munn, Nikoloz Tsikolia: What Does Functioning Have to do with Survival?	Conference on Medicine and Metaphysics, University at Buffalo, USA
Nov. 8, 2004	Werner Ceusters: Ontology for Natural Language Processing	University Hospital, Ghent, Belgium

Nov. 4-6, 2004	Thomas Bittner, Maureen Donnelly, Barry Smith: Individuals, Universals, Collections: On the Foundational Relations of Ontology	Formal Ontology and Information Systems (FOIS 2004) Turin, Italy
Nov. 4-6, 2004	Fabian Neuhaus, Pierre Grenon, Barry Smith: A Formal Theory of Substances, Qualities, and Universals	Formal Ontology and Information Systems (FOIS 2004) Turin, Italy
Nov. 4-6, 2004	Jonathan Simon: How to Be a Bicategorialist	Formal Ontology and Information Systems (FOIS 2004) Turin, Italy
Nov. 4-6, 2004	Barry Smith: Beyond Concepts: Ontology as Reality Representation	Formal Ontology and Information Systems (FOIS 2004) Turin, Italy
Nov. 4-6, 2004	Olivier Bodenreider, Barry Smith, Anita Burgun: The Ontology-Epistemology Divide: A Case Study in Medical Terminology	Formal Ontology and Information Systems (FOIS 2004) Turin, Italy
Nov. 4-6, 2004	Maureen Donnelly: Relative Places (Winner of IBM Prize)	Formal Ontology and Information Systems (FOIS 2004) Turin, Italy
Nov. 4-6, 2004	Mariana Casella dos Santos, James Matthew Fielding, Christoffel Dhaen, Werner Ceusters: Philosophical Scrutiny for Run-Time Support of Application Ontology Development	Formal Ontology and Information Systems (FOIS 2004) Turin, Italy
Nov. 3, 2004	Fabian Neuhaus: Family Resemblance	Workshop on the Potential of Cognitive Semantics for Ontologies, FOIS 2004, Torino, Italy
Nov. 02, 2004	David Oderberg: Hylomorphic Dualism: A Defence of a Neo-Aristotelian/Thomistic Theory of Personal Identity	Institut für Philosophie, Saarland University, Saarbrücken
Oct. 23-30, 2004	Matthew Fielding: Revisiting the Quantitative/Qualitative Debate: Towards a One-World Solution	International Conference on Mathematical Modelling, Addis Ababa, Ethiopia
Oct. 20, 2004	Boris Hennig: Practice and Teleology	Philosophisches Institut, Humboldt-Universität zu Berlin
Oct. 9, 2004	Ingvar Johansson: Biomereology: Relations are Not Sets of Ordered Pairs	Workshop on Fantology, University at Buffalo, USA
Oct. 2004	Barry Smith: The Logic of Biological Classification	Buffalo Logic Colloquium, Buffalo, USA
Sep. 25, 2004	Barry Smith: Ontologie-basierte Qualitätssicherung medizinischer Terminologien	GMDS 2004, Innsbruck, Austria
Sep. 25, 2004	Barry Smith: Biomedizinische Ontologie in Saarbrücken	GMDS 2004, Innsbruck, Austria

Sep. 25, 2004	Thomas Bittner, Barry Smith: Normalizing Medical Ontologies using Basic Formal Ontology	GMDS 2004, Innsbruck, Austria
Sep. 25, 2004	Anand Kumar, Lina Yip, M. Jaremek, H. Scheib: Ontological Model for Colon Carcinoma: A Case Study for Knowledge Representation in Clinical Bioinformatics	GMDS 2004, Innsbruck, Austria
Sep. 23-26, 2004	Barry Smith: Biomereology: From Formal Ontology to Biomedical Ontology	Logic, Ontology, Aesthetics: The Golden Age of Polish Philosophy, Université de Quebec à Montréal and Concordia University, Montréal Canada
Sep.23-26, 2004	Ingvar Johansson: Roman Ingarden and the Problem of Universals	Logic, Ontology, Aesthetics: The Golden Age of Polish Philosophy, Université de Quebec à Montréal and Concordia University, Montréal Canada
Sep. 19-24, 2004	Chris Menzel: PSL: An Industrially Motivated and Rigorously Formal Approach to Semantic Integration	Seminar on Semantic Interoperability and Integration, Dagstuhl,
Sep. 19-24, 2004	Chris Menzel: Basic Semantic Integration	Seminar on Semantic Interoperability and Integration, Dagstuhl,
Sep. 18, 2004	Werner Ceusters: Overview of European Developments in Ontology	Faculty of Medicine, University at Buffalo, USA
Sep. 16, 2004	Patty Koskova, Anand Kumar, Ajana Roy, Julius Weinberg, Gemma Madle, Ewart Carson: Ontological Principles of Disease Management from Public Health Perspective: a Tuberculosis Case Study	Healthcare Digital Libraries Workshop – HDL 2004; Bath, UK
Sep. 16, 2004	Werner Ceusters: Application of Ontology in Cancer Bioinformatics	Faculty of Medicine, University at Buffalo, USA
Sep. 15, 2004	Werner Ceusters: Realist Ontology for an Electronic Record Patient System	Faculty of Medicine, University at Buffalo, USA
Sep. 15, 2004	Ingvar Johansson: Concepts and Classifications in the Gene Ontology	Center for Cognitive Science, Buffalo, USA
Sep. 9, 2004	Ingvar Johansson: Truthmaking: A Cognition-Independent Internal Relation with Heterogeneous Relata	Philosophy Colloquium, University at Buffalo, USA
Sep. 7-11, 2004	Werner Ceusters: Formal Ontology and Electronic Healthcare Records: What Exists, What Happened, What has been Recorded	MedInfo 2004, Workshop on Foundational Issues in Medical Ontology, San Francisco, USA

Sep. 7-11, 2004	Maureen Donnelly: On Parts and Holes: the Spatial Structure of the Human Body	MedInfo 2004, San Francisco, USA
Sep. 7-11, 2004	Lowell Vizenor: Actions in Health Care Organizations: An Ontological Analysis	MedInfo 2004, San Francisco, USA
Sep. 7-11, 2004	Barry Smith: The Role of Foundational Relations in the Alignment of Biomedical Ontologies	MedInfo 2004, San Francisco, USA
Sep. 7-11, 2004	Barry Smith: Ontology-Based Error Detection in SNOMED-CT	MedInfo 2004, San Francisco, USA
Sep. 7-11, 2004	Barry Smith: Aspects of Ontology	MedInfo 2004, Workshop on Foundational Issues in Medical Ontology, San Francisco, USA
Sep. 7-11, 2004	Anand Kumar: metaProt: A Proteomics Metaclassification	MedInfo 2004, San Francisco, USA
Aug. 24, 2004	Barry Smith: The Unbearable Lightness of Biomedical Informatics (keynote speech)	Coling 2004, 20th Conference on Computational Linguistics, Geneva, Switzerland
Aug. 29, 2004	Anand Kumar, Barry Smith, Christian Borgelt: Dependence Relationships between Gene Ontology Terms based on TIGR Gene Product Annotations	Computerm 2004, 3rd International Workshop on Computational Terminology, Geneva, Switzerland
Aug. 22-27, 2004	Thomas Bittner: The Mereology of Stages and Persistent Entities	ECAI 2004, 16th Conference on Artificial Intelligence, Valencia, Spain
Aug. 7-14, 2004	Jonathan Simon: Is Lewis a Conventionalist about Mereology?	27th International Wittgenstein Symposium, Kirchberg, Austria
Aug. 7-14, 2004	Barry Smith: Against Predicate Logic	27th International Wittgenstein Symposium, Kirchberg, Austria
Aug. 7-14, 2004	Barry Smith: Forms of Life	27th International Wittgenstein Symposium, Kirchberg, Austria
Aug. 7-14, 2004	Ingvar Johansson: Truthmaking: A Cognition-Independent Internal Relation with Heterogenous Relata	27th International Wittgenstein Symposium, Kirchberg, Austria
Aug. 2004	Anand Kumar: Formal Ontologies in Biomedicine	University of Vienna, Austria
July 26, 2004	Barry Smith: Classes and Classification in Biology	Max Planck Institute for Mathematics in the Sciences, Leipzig
July 30, 2004	Barry Smith: Ontology and Biology	7th Annual Bio-ontologies Meeting, Glasgow, Scotland, UK

July 30, 2004	Barry Smith, Jeremy Rogers, Crispin Müller: The Future of Bio-Ontology (panel session)	7th Annual Bio-ontologies Meeting, Glasgow, Scotland, UK
July 30, 2004	Anand Kumar: Enhancing GO for the Sake of Clinical Bioinformatics	7th Annual Bio-ontologies Meeting, Glasgow, Scotland, UK
July 21, 2004	Leonardo Zaibert: On Punishment	Leipziger Philosophisches Kolloquium, University of Leipzig
July 21, 2004	Elisabeth Millan-Zaibert: On the Distinction Between German Idealism and Frühromantik	Leipziger Philosophisches Kolloquium, University of Leipzig
July 8-9, 2004	Katherine Munn, Nikoloz Tsikolia: Is Survival a Function?	Annual Conference of the British Society for the Philosophy of Science, Canterbury, UK
July 5-9, 2004	Jonathan Simon, Matthew Fielding: The Ontology of Disease	3rd Global Conference: Making Sense of Health, Illness and Disease, Oxford, UK
July 4-6, 2004	Barry Smith: Anatomy and Time	Ontology Workshop, Summer School of the European Union Network of Excellence in Medical Informatics and Semantic Datamining, Balatonfüred, Hungary
July 4-6, 2004	Barry Smith: Foundations of Ontology	Ontology Workshop, Summer School of the European Union Network of Excellence in Medical Informatics and Semantic Datamining, Balatonfüred, Hungary
July 4-6, 2004	Thomas Bittner: FMA and GALEN: A Critical Overview	Ontology Workshop, Summer School of the European Union Network of Excellence in Medical Informatics and Semantic Datamining, Balatonfüred, Hungary
July 4-6, 2004	Maureen Donnelly: Parts and Holes: The Spatial Structure of the Human Body	Ontology Workshop, Summer School of the European Union Network of Excellence in Medical Informatics and Semantic Datamining, Balatonfüred, Hungary
July 4-6, 2004	Ingvar Johansson: The Ontology of Temperature	Ontology Workshop, Summer School of the European Union Network of Excellence in Medical Informatics and Semantic Datamining, Balatonfüred, Hungary

July 4-6, 2004	Anand Kumar: How ICD10, SNOMED-CT and GO benefit from the FMA	Ontology Workshop, Summer School of the European Union Network of Excellence in Medical Informatics and Semantic Datamining, Balatonfüred, Hungary
July 3, 2004	Barry Smith: Formal Ontology and Biomedical Informatics: Aristotle, Darwin, Husserl; Husserl and the Historical Epistemology of the Sciences	Max Planck Institute for the History of Science, Berlin
June 23-26, 2004	Barry Smith: Searle and De Soto: The New Ontology of the Social World	Holistic Epistemology and Action Theory, Institute of Philosophy, University of Leipzig
June 23-26, 2004	Ingvar Johansson: How Do Non-Joint Commitments Come Into Being?	Holistic Epistemology and Action Theory, Institute of Philosophy, University of Leipzig
June 22, 2004	Barry Smith: Prospects for Biomedical Ontology – From Aristotle to the Human Genome Project	Saarland University, Saarbrücken
June 15, 2004	Petra Becker-Pechau, Pierre Grenon, Mark Lycett Brunel, Chris Partridge Brunel, Joerg Pechau, Dirk Siebert: Philosophy, Ontology, and Information Systems	18th European Conference on Object-Oriented Programming (ECOOP 2004), Oslo, Norway
June 2-5, 2004	Matthew Fielding, Jonathan Simon, Werner Ceusters, Barry Smith: Ontological Theory for Ontology Engineering	9th International Conference on Principles of Knowledge Representation and Reasoning (KR 2004), Whistler, Canada
June 1, 2004	Thomas Bittner: Axioms for Parthood and Containment Relations in Bio-Ontologies	1st International Workshop on Formal Biomedical Knowledge Representation KR-MED, Whistler, Canada
June 1, 2004	Olivier Bodenreider, Barry Smith, Anand Kumar, Anita Burgun: Investigating Subsumption in DL-based Terminologies: A Case Study in SNOMED-CT	1st International Workshop on Formal Biomedical Knowledge Representation KR-MED, Whistler, Canada
June 1, 2004	Boris Hennig: Practical Knowledge	Institut für Philosophie, Humboldt-Universität zu Berlin
June 3, 2004	Barry Smith: SNAP and SPAN: From the Foundational Model of Anatomy to the Physiology Reference Ontology	Department of Biological Structure, Faculty of Medicine, University of Washington, Seattle, USA
May 28-29, 2004	Michael Ashburner: The Gene Ontology	The Formal Architecture of the Gene Ontology, Max Planck Institute for Evolutionary Anthropology, Leipzig

May 28-29, 2004	Ingvar Johansson: The Gene Ontology and the World	The Formal Architecture of the Gene Ontology, Max Planck Institute for Evolutionary Anthropology, Leipzig
May 28-29, 2004	Barry Smith: Stop Smart Technologies through Ontological Principles	The Formal Architecture of the Gene Ontology, Max Planck Institute for Evolutionary Anthropology, Leipzig
May 19-21, 2004	Anand Kumar, Barry Smith: Towards a Proteomics Meta-Classification	Fourth IEEE Symposium on Bioinformatics and Bioengineering (BIBE 2004), Taichung, Taiwan
May 19, 2004	Katherine Munn, Dirk Siebert, Barry Smith: Ontology in Bioinformatics	3. Biotechnologie-Tag, Bio City Leipzig
May 19, 2004	Dirk Siebert, Barry Smith, Katherine Munn: How Biotechnology Can Benefit From Formal Ontology	3. Biotechnologie-Tag, Bio City Leipzig
May 13-15, 2004	Ingvar Johansson: Constituent Functions	XVth Internordic Philosophy Symposium
May 12, 2004	Ingvar Johansson: Research: Truth and Competition	Department of Sociology, Umeå University, Sweden
May 12, 2004	Katherine Munn: Epistemische Deontologie bei Leibniz	Leipziger Philosophisches Kolloquium, University of Leipzig
May 8-9, 2004	Ingvar Johansson: The Ship of Theseus and Supervenient Identities	Workshop Materialism, Mind, and Modality, Umeå University, Sweden
May, 2004	Barry Smith: Biomedizinische Arbeit des IFOMIS-Instituts	Faculty of Medicine, University of Freiburg
April 27, 2004	Anand Kumar: Ontological Representation for Colon Carcinoma: A Case Study for Clinical Bioinformatics in Diseases Involving Mutated Proteins	Swissprot, Geneva, Switzerland
April 23, 2004	Barry Smith: Medical FactNet: A New Methodology for the Construction and Validation of Information Resources for Consumer Health	SNERG Research Group, Department of Computer Science and Engineering, University at Buffalo, USA
April 23, 2004	Ingvar Johansson: What Are Top-Level Ontologies Classifying: Particulars, Universals, or Both?	Laboratory for Applied Ontology, ISTC-CNR, Trento, Italy
April 22, 2004	Ingvar Johansson: Qualities in BFO and Quality Regions in DOLCE — An Attempt at a Reconciliation	Laboratory for Applied Ontology, ISTC-CNR, Trento, Italy
April 22, 2004	Pierre Grenon: BFO and DOLCE — We Come in Peace	Laboratory for Applied Ontology, ISTC-CNR, Trento, Italy

April 12-15, 2004	Lowell Vizenor, Barry Smith: Speech Acts and Medical Records: The Ontological Nexus	EuroMISE 2004, Prague, Czech Republic
April 12-15, 2004	Jonathan Simon: Reference Ontologies for Biomedical Ontology Integration and Natural Language Processing	EuroMISE 2004, Prague, Czech Republic
April 12-14, 2004	Anand Kumar, Barry Smith, Domenico M. Pisanelli, Aldo Gangemi, Mario Stefanelli: An Ontological Framework for the Implementation of Clinical Guidelines in Health Care Organizations	EuroMISE 2004, Prague, Czech Republic
March 31-April 1, 2004	Jonathan Simon, Barry Smith: Using Philosophy to Improve the Coherence and Interoperability of Applications Ontologies: A Field Report on the Collaboration of IFOMIS and L&C	1st Workshop on Philosophy and Informatics, Cologne
March 31-April 1, 2004	Doug Mayhew, Dirk Siebert: Ontology: The Discipline and the Tool	1st Workshop on Philosophy and Informatics, Cologne
March 25-26, 2004	Barry Smith, Jakob Köhler, Anand Kumar: On the Application of Formal Principles to Life Science Data: A Case Study in the Gene Ontology	DILS 2004, International Workshop on Data Integration in the Life Sciences, Leipzig
March 25-26, 2004	Werner Ceusters, Barry Smith, James Matthew Fielding: LinkSuite: Formally Robust Software Tools for Ontology-Based Data and Information Integration	DILS 2004, International Workshop on Data Integration in the Life Sciences, Leipzig
March 5, 2004	Barry Smith: Ontology and the Semantic Web	Department of Information Systems, University of Melbourne, Melbourne, Australia
March 5, 2004	Barry Smith: The Logic of Biological Classification	Logic Colloquium, University of Melbourne, Melbourne, Australia
March 4, 2004	Barry Smith: The Gene Ontology	Department of Philosophy, University of Melbourne, Melbourne, Australia
March 1, 2004	Barry Smith: The Ecological Approach to Information Processing	Department of Information Systems, University of Melbourne, Melbourne, Australia
Feb. 27, 2004	Barry Smith: The Metaphysics of Medicine	Department of Philosophy, Monash University, Melbourne, Australia
Feb. 10, 2004	Barry Smith: Medical Fact Net	National Library of Medicine, Bethesda, USA

Feb. 9, 2004	Barry Smith: Formal Principles for Biomedical Ontologies	Center for Bioinformatics, National Cancer Institute, USA
Feb. 4, 2004	Christoph Nyiri: Einheit des Wissens: Der Aufbau einer virtuellen Enzyklopädie	Leipziger Philosophisches Kolloquium, University of Leipzig
Jan. 13, 2004	Barry Smith: Biomedizinische Ontologien	Kolloquium der Medizinischen Informatik, Universitätsklinikum Freiburg
Jan. 28, 2004	Michael Gorman: Essentialismus ohne Modalität	Leipziger Philosophisches Kolloquium, University of Leipzig

## I.2.2 Veranstaltungen im IFOMIS

Dec. 7, 2004	Chris Menzel (Texas A&M University): Basic Semantic Integration: First-Order Logic is Enough
Nov.16, 2004	Uwe Meixner (Saarland University): States of Affairs, Properties, Modalities
Nov. 2, 2004	Paul Buitelaar (German Research Center in Artificial Intelligence): Ontology Extraction
July 28, 2004	Lenny Moss (Notre Dame University): Decomposition, Detachment, Biology Agency, and the Meaning of the Phenotype
June 30, 2004	Boris Hennig: Action Theory and Function
June 17, 2004	Michael Ghiselin (California Academy of Sciences): (Metaphysics and the Origin of Species): The Ontology of Species
May 25, 2004	Michael Gormann: Normativity in Metaphysics
May 5, 2004	Ingvar Johansson: Actions and Organizations
May 5, 2004	Pierre Grenon: Status Report on BFO and DOLCE
March 11, 2004	Stefano Borgo (Laboratory for Applied ontology, Trento): The Integration of BFO and DOLCE
Jan. 29, 2004	Jürgen Jost (Max-Planck-Institut, Leipzig): Transformations and Invariants: On the Concept of Gestalt
Jan. 9, 2004	Kai Hauser (Berlin): On the Theory of Parts and Wholes

### I.2.3 Durch IFOMIS organisierte Workshops

Nov. 22-23, 2004	Workshop on Description Logics and Reasoning about Patient Data	Organized under the auspices of the EU FP6 Network of Excellence in Semantic Interoperability and Data Mining in Biomedicine
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#### List of Participants

Ahlfeldt, Hans	Department of Biomedical Engineering, Linköping, Sweden
Alcantara, Manuel	Computerlinguistik, Universität des Saarlandes, Germany
Andersen, Bill	Ontology Works, Inc., Odenton, USA
Baader, Franz	Theoretical Computer Science, TU Dresden, Germany
Beck, Rainer	University Hospital Freiburg, Germany
Bertomen, Nuria	Computerlinguistik, Universität des Saarlandes, Germany
Bittner, Thomas	IFOMIS, Universität des Saarlandes
Böker, Martin	Freiburg University Hospital, Freiburg, Germany
Brandt, Sebastian	TU Dresden, Germany
Ceusters, Werner	ECOR, Universität des Saarlandes
Cornet, Ronald	Academic Medical Center, Amsterdam, Netherlands
Dhaen, Christoffel	Ghent, Belgium
Donnelly, Maureen	IFOMIS, Universität des Saarlandes
Eisner, John	Buffalo, USA
Fielding, Matthew	IFOMIS, Universität des Saarlandes
Hahn, Udo	University Jena, Germany
Ingenerf, Josef	Medizinische Universität zu Lübeck, Germany
Jaulent, Marie-Christine	Faculté de Médecine Broussais-Hôtel-Dieu, Paris, France
Jörg, Brigitte	DFKI, Saarbrücken, Germany
Johansson, Ingvar	IFOMIS, Universität des Saarlandes
Keizer, Nicolette de	Academic Medical Center, Amsterdam, Netherlands
Klein, Gunnar	Karolinska Institutet, Stockholm, Sweden
Kumar, Anand	IFOMIS, Universität des Saarlandes
Le Bozec, Christel	Faculté de Médecine Broussais-Hôtel-Dieu, Paris, France
Lutz, Carsten	TU Dresden, Germany
Marko, Kornel	Freiburg University Hospital, Germany
Marwede, Dirk	University Hospital Leipzig, Germany
Menzel, Chris	IFOMIS, Universität des Saarlandes
Neuhaus, Fabian	IFOMIS, Universität des Saarlandes
Novotny, Daniel	IFOMIS, Universität des Saarlandes
Nyström, Mikael	Department of Biomedical Engineering, Linköping, Sweden

Papakin, Igor	Universität Leipzig, Germany
Petersson, Håkan	Department of Biomedical Engineering, Linköping, Sweden
Rector, Alan	Department of Computer Science, University of Manchester, UK
Rogers, Jeremy	Department of Computer Science, University of Manchester, UK
Sattler, Ulrike	Department of Computer Science, University of Manchester, UK
Schulz, Stefan	University Hospital Freiburg, Germany
Smith, Barry	IFOMIS, Universität des Saarlandes
Spackman, Kent	Oregon Health & Science University, Portland, USA
Straub, Hans Rudolf	Ermatingen, Switzerland
Sundval, Erik	Department of Biomedical Engineering, Linköping, Sweden
Ven, Jostein	Department of Linguistics, NTNU, Trondheim, Norway

## I.3 Publikationen

### I.3.1 Artikel in Referenzeitschriften

Bittner Thomas, Donnelly Maureen, Smith Barry: “Endurants and Perdurants in Directly Depicting Ontologies”, **in:** *Communications*, IOS Press, Amsterdam, 2004, Vol.13, 247-258.

Bittner Thomas: “A Mereological Theory of Frames of Reference”, **in:** *International Journal on Artificial Intelligence Tools (IJAIT)*, 13 (2004) 1, 171-198.

Donnelly Maureen: “A Formal Theory for Reasoning about Parthood, Connection, and Location”, **in:** *Artificial Intelligence*, 160, 145-172.

Grenon Pierre, Smith Barry: “SNAP and SPAN: Towards Dynamic Spatial Ontology”, **in:** *Spatial Cognition and Computation*, 4 (2004) 1, 69-103.

Johansson Ingvar: “Functions, Function Concepts, and Scales” **in:** *The Monist*, 87, 2004, 96-114.

Kumar Anand, Smith Barry, Daniel Novotny: “Biomedical Informatics and Granularity”, **in:** *Comparative and Functional Genomics*, 5 (2004), 501-508.

Smith Barry, Kumar Anand: “On Controlled Vocabularies in Bioinformatics: A Case Study in the Gene Ontology”, **in:** *BIOSILICO: Drug Discovery Today*, 2, 2004, 246-252.

Smith Barry, Grenon Pierre: “The Cornucopia of Formal-Ontological Relations”, **in:** *Dialectica*, 58:3 (2004), 279-296.

### I.3.2 Artikel in anderen Zeitschriften

Smith Barry, Dirk Siebert: “Warum benutzen Ärzte keine Computer”, **in:** *Deutsches Ärzteblatt/PraxisComputer*, 20 (2004) 1, 18-20.

Smith Barry, Dirk Siebert, Werner Ceusters: “Was die philosophische Ontologie zur biomedizinischen Informatik beitragen kann”, **in:** *Information: Wissenschaft und Praxis*, 55: 3(2004), 143–146.

Smith Barry, Maurizio Ferraris, Leonardo Zaibert: “La Costituzione ontologica”, **in:** *Il sole 24 Ore*, 27 June 2004.

Vershelde Jean-Luc, Dos Santos Mariana Casella, Deray Tom, Smith Barry, Ceusters Werner: “Ontology Assisted Database Integration”, (Symposium on Integrative BioInformatics”, Bielefeld, Germany, Aug. 4-5, 2003.) **in:** *Journal of Integrative Bioinformatics* (online publication), published January 2004.

### I.3.3 Bücher

Johansson Ingvar: *Ontological Investigations: An Inquiry into the Categories of Nature, Man and Society*, 2. Ausgabe, Ontos Verlag, Frankfurt, Lancaster: 2004.

Neuhaus F., Hendricks V., Pedersen S. A., Scheffler U., Wansing H. (eds.): *First-Order Logic Revisited*, Logos Verlag, Berlin, 2004.

### I.3.4 Buchbeiträge

- Chrudzimski Arkadiusz, Smith Barry: “Brentano's Ontology”, **in:** Dale Jacquette (ed.): *The Cambridge Companion to Brentano*. Cambridge University Press, Cambridge: 2004, 175-194.
- Johansson Ingvar: “The Ontology of Temperature”, **in:** online Festschrift to Björn Haglund (2004), <http://www.phil.gu.se/posters/festschrift/>.
- Johansson Ingvar: “On the Transitivity of the Parthood Relation”, **in:** H. Hocberg and K. Mulligan (eds), *Relations and Predicates*, Ontos Verlag, Frankfurt 2004, 161-181.
- Mark David M., Smith Barry, Egenhofer M. J., Hirtle S. C.: “Ontological Foundations for Geographic Information Science”, **in:** R. B. McMaster and E. L. Userly (eds.), *A Research Agenda for Geographic Information Science*, Boca Raton, Florida: CRC Press, 2004, 335-350.
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