

Thursday–Friday, December 1–2, 2005

A Workshop on

Quantities, Numbers, and Parts

Organized by the
[Institute for Formal Ontology and Medical Information Science](#)
Saarland University (Building 6, Seminar room 1.32)

Theme:

In modern theorizing in information science, and increasingly in biomedical applications, the relation of part-to-whole plays an important role. But how is pure formal parthood related to the more substantive kinds of parthood relations we find in specific domains? A similar question has been discussed in the philosophy of measurement. How is, for instance, the number 5 of pure mathematics related to 5 degrees Celsius and 5 litres of blood? Can we simply take over the structure of the positive real numbers from mathematics and use it to distinguish between different temperatures or different volumes? Or, does it perhaps belong to the essence of temperature and of volume, but not to all qualities, to be such as to conform to the structure of the number line and be quantities?

This exploratory workshop will address the following three questions with special reference to their application in the life sciences and related domains:

- How are quantities related to numbers?
- How are substantive parthood relations related to formal parthood?
- In what sense, if any, are these two questions analogous?

Programme Committee:

Ingvar Johansson (IFOMIS, Saarbrücken) and
Peter Simons (University of Leeds)

Programme:

Thursday

- 1:00 pm Registration and Welcome
1:30 Peter Simons (Leeds),
“[Magnitudes, Quantities, Proportions and Numbers](#)”
2:30 Coffee
2:45 Ingvar Johansson (Saarbrücken and Umeå),
“[Varieties of Quantities and Varieties of Parts](#)”
3:45 Erwin Tegtmeier (Mannheim),
“[The Misleading Mereology of Measurement](#)”
4:45 Coffee
5:00 Ghislain Guigon (Geneva),
“[Quantities without Parts: Relational Quantities](#)”
7:15 Dinner

Friday

- 9:30 am N. Guarino, C. Masolo (Trento),
“[Qualities, Qualia, and Metric Spaces](#)”
10:30 Coffee
10:45 Barry Smith (Saarbrücken and Buffalo),
“Towards the Integration of Top-Level Ontologies”
11:45 D. Karlsson, U. Forsum (Linköping),
“[Representation of Kinds of Properties in Laboratory Medicine](#)”
12:45 Lunch
2:00 pm J. Bring (Uppsala), J. Odelstad (Gävle),
“[The Practice and Theory of Scale Transformations](#)”
3:00 M. Boeker, S. Schulz (Freiburg),
“[Numbers and Quantities in Medical Practice and Biomedical Science](#)”
4:00 End

Deadlines and other practical details:

1. Deadline for registration is October 31.
To register and to obtain details about accommodation please write:
michelle.carnell@ifomis.uni-saarland.de
The number of participants is restricted; and early registration is recommended.
2. The workshop fee is 30 Euros; this fee is for refreshments provided at the lunch and coffee breaks; it should be paid upon arrival on Thursday morning.
3. For further details please contact: ingvar.johansson@ifomis.uni-saarland.de