A Special Issue of Studia Logica

The Contributions of Logic to the Foundations of Physics
Trends in Logic VI

CALL FOR PAPERS

Further to the Studia Logica International Conference Trends in Logic VI, held in Brussels on December 11 - 12, 2008, we cordially invite you to submit a paper for a special issue of Studia Logica devoted to Logic and the Foundations of Physics.

We specifically, though not exclusively, invite contributions on the following topics:

- The use of techniques originating from classical logic, modal logic and multi-dimensional modal logics, spatial logic, dynamic logic, temporal logic, epistemic logic, linear logic and other resource-sensitive logics, intuitionistic logic, game logics, process algebras, co-algebraic logics, categorical logics, many-valued logics, quantum logics etc. to formalize physical theories or to reason about their concepts, phenomena and/or applications.
- Logical techniques used in quantum information theory, including quantum computation, quantum communication, quantum cryptography and quantum programming.
- Philosophical contributions on the meaning of concepts such as truth, consequence, completeness, implication and (quantum) information viewed at the interface of Logic and Physics.
- Open problems in modern physics, soliciting new techniques from logic, computation or information theory.
- Explorations on how to use new formal methods in combination with insights and interpretations in the philosophy of physics to yield new perspectives on the main foundational issues and open problems in modern physics.
- Answers to the questions: "What can physics learn from logic?" and/or "What can logic learn from physics?"

SUBMISSION OF PAPERS:

Submitted papers should not exceed 20 pages (including bibliography), and should be formatted according to the Studia Logica LaTeX style (see "Information for Authors" at the Studia Logica website http://www.studialogica.org/). Only electronic submissions prepared with this style file will be considered. The authors should send an e-mail with subject "Studia Logica Submission" to Sonja Smets (sonsmets@gmail.com) with the file of the paper in attachment (attach both the "tex" and "pdf" files), and give the following information in the body of the mail in plain text: paper title, author names, surface mail, e-mail address and phone number of the contact author and a short abstract.

DEADLINE FOR SUBMISSION OF MANUSCRIPTS: May 31, 2009

All papers will be refereed according to the standards of the journal.

On Behalf of The Guest editors:

Diederik Aerts, Sonja Smets and Jean Paul Van Bendegem