ISHPSSB2013 – Traditional Session Form

Please fill in this form, rename it (on the following model: Name of the organizer_Title of session), and submit it as a PDF file at the Third step ("Files") of the submission process (please select "Presentation" as the "Type of the file").

Title of the session (*mandatory*): The explanatory role of mathematical and dynamical models in molecular and cell biology

Organizer of the session (may but need not be a participant in the session) (*mandatory*): BRAILLARD, Pierre-Alain and MALATERRE, Christophe

Names of all the participants in the session (*mandatory*): BEATU, Tudor; BRAILLARD, Pierre-Alain; GROSS, Fridolin; ISSAD, Tarik and MALATERRE, Christophe

Name of Chairperson (*mandatory*) (cannot be one of the participants):
Stuart GLENNAN

Names of respondents or commentators (*if any*):

Theme of your session (please pick *one* theme in the list below) (*mandatory*):
Systems Biology, Synthetic Biology and Genomics

****

List of themes:
- Anthropology
- Cellular and Molecular Biology: Historical and Philosophical Approaches
- Development and Evo-devo
- Ethical and bioethical issues
- Evolutionary Biology: Origin, and early developments
- Evolutionary Biology: The Modern Synthesis
- Evolutionary Biology: The recent challenges
- Evolutionary Biology: Theoretical and conceptual issues (e.g. definition of Darwinian processes, levels of selection, etc.)
- Evolutionary Biology: Cooperation, altruism, evolution and economy
- Evolutionary Psychology
- Functions and Mechanisms
- Gender Studies
- Historical, philosophical and sociological perspectives on:
- Ecology
- Epigenetics
- Origins of life, minimal life
- History of Genetics
- Neurosciences and cognitive sciences: scientific, social, and philosophical issues
- The "organism" problem
- Public Health issues, and their social dimensions
- Reductionism, antireductionism, emergence
- The "species" problem
- Systematics and classification
- Systems Biology, Synthetic Biology and Genomics
- Teaching Biology
- Others