INFORMATION AND INFORMATION–PROCESSING IN SCIENCE:

BIOLOGY, PHYSICS & BRAIN & COGNITIVE SCIENCES

The 30th Annual International Workshop on
the History and Philosophy of Science

Research Workshop of the Israel Science Foundation

MONDAY–THURSDAY, 30 MAY – 2 JUNE, 2016

MONDAY, 30 MAY

At Tel Aviv University (Gilman Building, Hall 496)

INFORMATION IN BIOLOGY

9:45-10:00 Welcome Remarks: **Prof. José Brunner**, Director, Cohn Institute for the History and Philosophy of Science and Ideas

10:00-11:00 Prof. Michael Lachmann (Santa Fe Institute)
Information in Evolution

11:00-12:00 Dr. Ulrich Stegmann (University of Aberdeen and Utrecht University)
Do Animal Signals Have Derived Content?

12:00-12:30 COFFEE BREAK

12:30-13:30 Prof. Irun R. Cohen (Weizmann Institute of Science)
An Informational View of the Evolution of Living Systems

13:30-14:45 LUNCH BREAK

14:45-15:45 Prof. Dan Zakay (Tel Aviv University and IDC Herzeliya)
Time as Information to the Cognitive and Meta–Cognitive Systems

15:45-16:45 Dr. Rosa Cao (Indiana University)
Functional Specialization, Substrate Independence, and the Explanatory Role of Information

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TUESDAY, 31 MAY

At the Van Leer Jerusalem Institute (43, Jabotinsky Street)

INFORMATION IN PHYSICS

9:15-10:15 Prof. Olimpia Lombardi (CONICET – Universidad de Buenos Aires)
Interpreting the Concept of Information

10:15-11:15 Prof. Yemima Ben-Menahem (The Hebrew University of Jerusalem)
The PBR Theorem: Whose Side Is It On?

11:15-11:30 COFFEE BREAK

11:30-11:45 Greetings: **Prof. Gabriel Motzkin**, Director of the Van Leer Jerusalem Institute

11:45-12:45 Dr. Daniel Rohrlich (Ben-Gurion University of the Negev)
Thermodynamics and the Measure of Entanglement

12:45-14:00 LUNCH BREAK

14:00-15:00 Prof. Orly Shenker (The Hebrew University of Jerusalem)
Entropy: Information versus Probability

15:00-16:00 Israel Belfer (Bar-Ilan University, STS Program)
Bit by Bit: The Role of Information in Physics

16:00-16:15 COFFEE BREAK

16:15-17:15 Open Discussion:
On Information in Biology and Physics

WEDNESDAY, 1 JUNE

At the Van Leer Jerusalem Institute (43, Jabotinsky Street)

INFORMATION IN COGNITIVE SCIENCE Pt. 1

9:30-10:30 Prof. Gualtiero Piccinini (University of Missouri, St. Louis)
Nonnatural Representation

10:30-11:30 Dr. Mark Sprevak (The University of Edinburgh)
Information and Representation in Probabilistic Models of Cognition

11:30-12:00 COFFEE BREAK

12:00-13:00 Prof. Oron Shagrir (The Hebrew University of Jerusalem)
No Computation without Representation

13:00-14:30 LUNCH BREAK

14:30-15:30 Dr. Ayelet N. Landau (The Hebrew University of Jerusalem)
Temporal Structure in Perception and Attention

15:30-16:30 Dr. Nir Fresco (The Hebrew University of Jerusalem) and **Prof. Eva Jablonka** (Tel Aviv University)
From Information to Representation: A Teleological Approach

16:30-16:45 COFFEE BREAK

16:45-17:45 Dr. Ronald J. Planer (University of Kentucky)
Evolving a Language of Thought

THURSDAY, 2 JUNE

At the Hebrew University of Jerusalem
(Edmond J. Safra Campus/Givat Ram, Beit Belgia)

INFORMATION IN COGNITIVE SCIENCE Pt. 2

9:30-10:30 Prof. Haim Sompolinsky (The Hebrew University of Jerusalem)
Information and Representation in Theories of Brain Sensory Processing

10:30-11:30 Prof. Fred Adams (University of Delaware)
From information to Cognition

11:30-12:00 COFFEE BREAK

12:00-13:00 Prof. Aaron Sloman (University of Birmingham, UK)
What's information? An Answer from Physics, Biology, Mind-Science and Philosophy

The Van Leer Jerusalem Institute

43 Jabotinsky St., Jerusalem, Tel. 02-5605216 www.vanleer.org.il

Admission is free.

Parking is not available at the VL Institute (metered parking is available on the neighboring streets).
Photographs taken at the event will be posted on the Institutes' websites and on social networks.