

Rutgers Workshop on Structural Realism and Metaphysics of Science*

Time: May 18-19, 2017
Location: Seminar Room,
Rutgers Philosophy Department
106 Somerset Street, New Brunswick, NJ

Workshop Theme

What is the fundamental nature of physical reality? The traditional metaphysician of science would most likely answer in terms of objects, properties, and laws of fundamental physics. Structural realists (James Ladyman, Don Ross, Steven French, Kerry McKenzie, among others) reject the traditional answer. They argue from the pessimistic meta-induction, and the projects of contemporary physics such as quantum field theory, quantum gravity, and symmetry-based space-time theories, that there are no “objects” (or at any rate that we should not believe in “objects”) and that there is only “structure.” They go on to show that this revisionary metaphysical picture of physical reality fits well with the methodology of modern physics. However, many metaphysicians and philosophers of science are worried about the intelligibility and coherence of this new picture of an object-free and structure-only physical reality. It is not obvious how to formulate structural realism as a clear, precise, and positive metaphysical thesis.

These issues are on the cutting edge of both contemporary philosophy of physics and metaphysics. The two-day Rutgers Workshop aims to provide an opportunity for in-depth discussions about these important issues.

For more information, please contact the organizer Eddy Chen (eddy.chen@rutgers.edu).

Faculty advisors: Barry Loewer, Jill North, Jonathan Schaffer, Ted Sider, Dean Zimmerman.

Invited Discussants

Jill North, Jonathan Schaffer, Dean Zimmerman, Barry Loewer, David Albert, Tim Maudlin, Vishnya Maudlin, Sheldon Goldstein, Hartry Field, Marco Dees, Jo Wolff, Alyssa Ney, Mark Johnston, Ned Hall, Elise Crull, Zee Perry, Thomas Barrett, Noel Swanson, Robbie Hirsch, Michaela McSweeney, Mark Balaguer, Christina Conroy, Laurenz Hudetz, Hedda Hassel Morch, Harvey Lederman, Jeremy Goodman.

*This workshop is made possible through the generous support of the Marc Sanders Foundation, the Rutgers Philosophy Department, Professors Jill North, Ted Sider, and Dean Zimmerman. Special thanks are due to Professor Mark Johnston, Professor Larry Temkin (the department chair), the faculty advisors, the graduate students, and the administrative staff members of the Rutgers Philosophy Department.

Conference Schedule

Thursday, May 18

Each session: 30min lecture + 40min discussion + 10min break, with some flexibility.

9:00 - 10:00 Breakfast

9:50 - 10:00 Welcome & Introductory Remarks

10:00 - 11:10 Speaker: JAMES LADYMAN (Bristol). Chair: JONATHAN SCHAFFER (Rutgers)
"What Ontic Structural Realism Could Be"

11:20 - 12:30 Speaker: CIAN DORR (NYU). Chair: ZEE PERRY (Rutgers)
"A Way of Getting Rid of Things: Higher-Order Languages, Priorian Nominalism, and Nihilism"

12:30 - 2:00 Lunch in the philosophy department

2:00 - 3:10 Speaker: JONATHAN BAIN (NYU). Chair: ELISE CRULL (CUNY)
"Category-Theoretic Radical Ontic Structural Realism"

3:20 - 4:30 Speaker: VALIA ALLORI (NIU). Chair: ALYSSA NEY (UC Davis)
"Structuralism, Laws and Properties"

4:40 - 5:50 Speaker: TED SIDER (Rutgers). Chair: EDDY CHEN (Rutgers)
"Structural Realism and Metametaphysics"

6:30 - 8:45 Conference dinner at Sahara. (RSVP required)

Friday, May 19

9:00 - 10:00 Breakfast

10:00 - 11:10 Speaker: SIMON SAUNDERS (Oxford). Chair: Jo WOLFF (KCL)
"Structuralism and Ontology" (Remote lecture via Skype)

11:20 - 12:30 Speaker: HANNES LEITGEB (LMU Munich). Chair: LAURENZ HUDETZ (LSE)
"On Mathematical Structuralism. A Theory of Unlabeled Graphs as Ante Rem Structures."

12:30 - 2:00 Lunch in the philosophy department

2:00 - 3:10 Speaker: DAVID WALLACE (USC). Chair: NED HALL (Harvard)
"The Semantic View of Theories as a Metaphysical Thesis"

3:20 - 4:30 Speaker: VERA MATARESE (HKU). Chair: JILL NORTH (Rutgers)
"Structural Realism as a Methodological Program to Investigate the Ontology of Bohmian Mechanics"

4:40 - 5:50 Speaker: DAVID CHALMERS (NYU). Chair: DEAN ZIMMERMAN (Rutgers)
"Digital Ontology and Structural Realism"

- Dinner & Drinks in New Brunswick.