Imagine that you are responsible for a large piece of software. It would be great to give a mathematical proof that your program is correct. Is it feasible? Somewhat ironically the problem whether your program is correct is not that hard. In fact you know the answer. The problem is not correct. It can't possibly be correct. The chances are that it is not even clear what it means that your problem is correct. So what do you do? You test. Software testing is hugely important. There are many kinds of testing: black box testing and white box testing; unit testing and system testing; alpha testing and beta testing; functional testing and security testing; and so on and so forth. We will attempt to give a general overview of testing, bring up some paradoxes of testing, and compare testing with scientific experimentation.

Yuri Gurevich is Principal Researcher at Microsoft Research in Redmond, Washington, USA. He is also Prof. Emeritus at the University of Michigan, ACM Fellow, Guggenheim Fellow, a member of Academia Europaea, and Dr. Honoris Causa of both the University of Limburg in Belgium and the Ural State University in Russia.

12:00-13:00 on Thursday, 18 March, 2010—Saal Auditorium, Alon Bldg (37/202)