Special Session 1

Wed. 20.07
4:35 –7:05 pm

What is an algorithm?

Chair: Helmut Schwichtenberg

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Abstracts

What is an effective algorithm?

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I will discuss Gurevich's axiomatic definition of classic, sequential algorithms, and the fact that, by adding a postulate regarding the finite representability of initial states, one can formally prove the Church-Turing thesis. More generally, I will address the question of what about a process makes it "effective".

What's an algorithm?

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We plan to address a variety of issues:

0. Algorithms vs. computable functions
1. Is it possible to define algorithms? The answer is in fact obvious.
2. What kind of entities algorithms are.
3. When are two algorithms the same?
4. Why bother to define algorithms?
5. Axiomatic definition of algorithms.