Some aspects of reverse mathematics

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This is my abstract for a 45-minute invited talk at the Reverse Mathematics Workshop to be held at the University of Chicago, September 16–18, 2011.

In this talk we comment on some philosophical aspects of reverse mathematics. Among the philosophical issues considered are finitism, potential infinity, actual infinity, predicativity, and predicative reductionism. In addition, we take this opportunity to announce some new results concerning algorithmic randomness, Kolmogorov complexity, and the reverse mathematics of measure theory.