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IN MEMORIAM: ERNST SPECKER
1920–2011

Born in Zurich, Switzerland, February 11, 1920, Ernst Paul Specker spent most of his life in that city, contributing decisively to the continuing international renown of the ETH in mathematics and logic. He died December 10, 2011. Set back by an early illness, he entered the ETH late but then, as a brilliant student, got his degree with the famous topologist and geometer Heinz Hopf with a thesis on cohomology and covering complexes in three dimensions, corresponding, so Specker, to the Zeitgeist. Between this publication in 1949 and his last one in 2011 on a generalized chess problem, the scope of Specker's work is impressively diverse in subject matter. But there is a coherence that stems from a characteristic taste in the selection of topics and problems, and in the ingenuity of invention and construction: Specker was attracted by outstanding mathematical challenges; as a young scientist by deep questions in the foundations of mathematics and physics; by combinatory set theory, and by interchange and collaboration originating mostly from his own work.

Recursiveness, by the 1940's, had established itself as the preferred mathematical candidate for the notion of constructivity. The foundational challenge was to determine differences between classical mathematics, in particular analysis, and 'constructive' analogues. The existence of such differences had been held at the time, on completely different grounds, by the intuitionists. Specker [3]: There are bounded monotone recursive sequences of rational numbers (now called Specker sequences), which do not converge to a recursive real number. The proof illustrates the fact that there are theorems of classical analysis that are not constructively provable. Again Specker [4]: There are continuous recursive real functions whose maximum on the closed unit interval is not itself recursive. These are seminal papers of a now well-developed field.

Model Theory in the early 1950's was, especially in the view of Tarski and others, the logically adequate form of the axiomatic standpoint emerging in the first half of that century. The challenge is to find general phenomena in the relation between formal axiomatic theories and their models. Specker [5]: Formal axioms may admit groups of transformations; do corresponding models admit corresponding (auto)morphisms? This connection is far from trivial even for groups of order 2: duality in projective geometry (interchanging 'point' and 'line' in the axioms, versus polarity in projective

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