

Herglotz—let's call him R. C.—ran up against a complicated definite integral in 5 dimensions. With great effort he reduced it to a much simpler integral in 3 dimensions, and this he passed on to Herglotz for his assistance in computing. After a while Herglotz came back with the comment that if by a nonobvious substitution one transforms the integral into a 5-dimensional one—which was R. C.'s original expression—then the computation is trivial. And he proceeded to show him how trivial.

On the personal side, Herglotz had great charm and was a perfect gentleman. The volume cites testimonials for that, and I can add the following corroboration. From what I can remember, I never had epistolary or personal encounters with Herglotz except for meeting him once, in May 1932, when I was in Göttingen for a lecture. (It was on Greek mathematics, and I own a clipping from a leading Berlin newspaper reporting on it.) My return train to Munich departed at 2 a.m. By academic seniority Herglotz towered over me, but he came to the station to see me off. And he stayed with me until the train started moving.

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Choice sequences, A chapter of intuitionistic mathematics, by A. S. Troelstra, Clarendon Press, Oxford, 1977, ix + 170 pp., \$10.95.

The book under review is based on lecture notes of a course on choice sequences given by the author at Oxford in 1975. Choice sequences are a paradigm case of specifically intuitionistic notions, that is notions which cannot be classically understood, and one of the principal virtues of the book is that it demonstrates the possibility of coherent reasoning about such notions.

The simplest sort of “freely” chosen sequence is a lawless sequence (of natural numbers). Such sequences are necessarily incomplete, only finite initial segments having been constructed at any time. At future times one is completely free in the choice of additional elements. If Γ is any well-defined operation on such sequences η whose values are completed objects x (so we have a proof that $\forall \eta \exists ! x \Gamma(\eta) = x$) then Γ is continuous in the product topology; for a proof that $\Gamma(\eta) = x$ can depend only on a finite initial segment of η . Since the axiom of choice is, intuitionistically, logically valid, we have for well-defined relations R the principle of $\forall \alpha \exists x$ -continuity: