Peter Bullen* (bullen@math.ubc.ca), Department of Mathematics, University of British Columbia, Vancouver, BC V6T 1Z2, Canada. Non-absolute Integration in the Twentieth Century.

This talk will be a survey of work in the theory of non-absolute integration carried out in the twentieth century. This field has varied in importance during the past one hundred years. At the beginning of the century it tackled a fundamental problem of inverting derivatives, and received attention from all important analysts, Lebesgue, Baire, Borel to name a few of the most prominent. Then after an exciting two decades it became a backwater, at almost the same level of interest as determinants, Jordan content and the like. Now the field is again an active, exciting area of research. The talk will eschew extreme technicalities and will hopefully be of interest to all with some analysis background. (Received June 23, 2000)