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Validated Computation of Special Functions II: Error Analysis.

One of the key features of the validated computation of special functions is the ability to control the error of the calculations, i.e. to validate the computation. Two of the most important types of error involved in the validated computation of special functions using electronic devices are truncation error and round-off error. In this talk, we discuss some of the techniques and methods used to estimate and control errors involved in implementing mathematical operations to user-specified numerical precision on a computer. (Received September 08, 2020)