Continued fractions for complex numbers

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Abstract: *While there is a rich theory of continued fractions for reals, also with multidimensional extensions, analogous issues for complex numbers have not received much attention in literature, though a beginning was made by Hurwitz as far back as 1887. We shall discuss in this talk a general framework for considering complex continued fractions for complex numbers. We extending the results of Hurwitz, concerning convergence aspects, periodicity etc., to a more general set up, which includes in particular continued fractions with Eisenstein integers as partial quotients, in place of the Gaussian integers in Hurwitz's work. We discuss also applications to values of binary quadratic forms at Gaussian integer pairs.*