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Convergence criteria for continued fractions  $K(a_n/1)$  are often stated in terms of twin convergence sets  $\langle E_1, E_2 \rangle$ . That is,  $E_1$  and  $E_2$  are sets  $\subseteq \mathbb{C}$  with the property that every continued fraction  $K(a_n/1)$  with all  $a_{2n-1} \in E_1$  and all  $a_{2n} \in E_2$  converges. To derive such convergence sets, one may use twin value sets  $\langle V_0, V_1 \rangle$ . It turns out that if  $V_0, V_1$  are non-empty with non-empty complements in  $\widehat{\mathbb{C}} := \mathbb{C} \cup \{\infty\}$ , then

$$E_1 := \{a \in \mathbb{C}; a/(1 + V_1) \subseteq V_0\}, \quad E_2 := \{a \in \mathbb{C}; a/(1 + V_0) \subseteq V_1\}$$

are twin convergence sets under surprisingly mild conditions.

The special case where  $V_0$  and  $V_1$  are circular domains; i.e., domains on the Riemann sphere  $\widehat{\mathbb{C}}$  bounded by circles on  $\widehat{\mathbb{C}}$ , has been treated by William B. Jones and W. J. Thron in a number of papers. In this talk we extend some of their results and give them a more unified form. (Received September 27, 2005)