A. Nokrane and T. J. Ransford, **Schwarz's Lemma for Algebroid Multifunctions**, *Complex Variables Theory Appl.*, 45 (2001), 183–196.

Abstract
Let $U = \{z \in \mathbf{C} : |z| < 1\}$, let $a_1, \dots, a_n$ be holomorphic functions on U, and set

$$F(z) = \{w \in \mathbf{C} : w^n + a_1(z)w^{n-1} + \cdots + a_{n-1}(z)w + a_n(z) = 0\} \qquad (z \in U).$$

We show that

$$\Delta_\tau\big(F(z_1), F(z_2)\big) \le \tau(z_1, z_2)^{1/n} \qquad (z_1, z_2 \in U),$$

where Δ_τ denotes the Hausdorff distance between two sets, measured with respect to the hyperbolic pseudo-metric τ on U. We further show that

$$D_\tau\big(F(z_1), F(z_2)\big) \le k\big(\tau(z_1, z_2)^{2/n}\big) \qquad (z_1, z_2 \in U),$$

where D_τ denotes the matching distance between two n-tuples, again measured with respect to τ, and where k is the elliptic modulus function. Two examples are given relating to the sharpness of these inequalities.