1172-30-126 Oliver Roth* (roth@mathematik.uni-wuerzburg.de) and Filippo Bracci. Semigroup-fication of univalent self-maps of the unit disc.

Let f be a univalent self-map of the unit disc. We introduce a technique, that we call semigroup-fication, which allows to construct a continuous semigroup (ϕ_t) of holomorphic self-maps of the unit disc whose time one map ϕ_1 is, in a sense, very close to f. The semigrup-fication of f is of the same type as f (elliptic, hyperbolic, parabolic of positive step or parabolic of zero step) and there is a one-to-one correspondence between the set of boundary regular fixed points of fwith a given multiplier and the corresponding set for ϕ_1 . Moreover, in case f (and hence ϕ_1) has no interior fixed points, the slope of the orbits converging to the Denjoy-Wolff point is the same. The construction is based on holomorphic models, localization techniques and Gromov hyperbolicity. As an application of this construction, we prove that in the non-elliptic case, the orbits of f converge non-tangentially to the Denjoy-Wolff point if and only if the Koenigs domain of f is "almost symmetric" with respect to vertical lines. (Received August 23, 2021)