Universality for golden mean Siegel disks

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The golden mean Siegel disk universality conjecture for analytic maps with a golden mean irrationally neutral fixed point - independence of small scale geometry of a Siegel disk on the particular form of a map - has been one of the long-standing open questions in complex dynamics.

We describe our recent computer-assisted proof of this conjecture, together with several consequences such as existence of Siegel cylinders and "warped" Siegel disk attractors for two dimensional perturbations of such maps.

This is a joint work with M. Yampolsky.