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IN HONOUR OF MICHAŁ MISIUREWICZ ON HIS 60TH BIRTHDAY

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## Microdynamics

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(joint work with William Geller and Bruce Kitchens)

We describe a new type of the scaling phenomenon. It has some features similar to renormalization and some similar to intermittency. We call it microdynamics. In a one-parameter family of maps in dimension 2, when the parameter goes to 0, the maps converge to the identity. Nevertheless, after a linear rescaling of both space and time, we get maps with attracting invariant closed curves. As the parameter goes to 0, those curves converge in a strong sense to a certain circle.