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Appearance of anomalous singularities in a semilinear parabolic equation

ABSTRACT:
We consider an initial value problem for a parabolic partial differential equation with a power nonlinearity. It is known that in some parameter range, there exists a time-local solution whose singularity is similar to that of a singular steady state for all existence time. In this talk, it is shown that there exists of a solution whose singularity becomes anomalous in finite time. This is a joint work with Shota Sato.