Pinched Ball models for Hénon maps

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In complex dynamics in one complex variable, the pinched disk model has been the major tool in understanding connected Julia sets.

I will describe the pinched disk model. I will then construct the Bonnot model, which describes the geometry of the very simplest Hénon maps. I corresponds to the polynomials $z \mapsto z^k$, but even it is pretty elaborate. I will then show how to pinch the Bonnot model to understand the 4-dimensional geometry of Hénon mappings in $\mathbb{C}^2$ in certain cases.