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**Rika Hagihara\*** ([hagihara@email.unc.edu](mailto:hagihara@email.unc.edu)), Department of Mathematics, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3250. *Rational Maps without Certain Periodic Points*. Preliminary report.

We explain the parameter space of the parameterized family of quadratic rational maps lacking period 2 points. Some mainly topological features of it in comparison with the Mandelbrot set are given. We further explain results on the interplay between the parameter space and the dynamical planes. We also mention analogous results on degree 3 rational maps without periodic points of period 2. (Received January 05, 2007)