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Heather D. Hannah* (hhannah@nd.edu), 255 Hurley, Notre Dame, IN 46556. *On the regularity of the periodic mKdV equation.* Preliminary report.

The solution of the periodic Cauchy problem for the mKdV equation with analytic initial data is in fact analytic in the space variable. However, even with the analytic initial data, in the time variable the solution may not be analytic, but it will have Gevrey-3 regularity. (Received January 25, 2006)