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Carl Mueller* (carl.e.mueller@rochester.edu), Department of Mathematics, University of Rochester, Rochester, NY 14627, and **Eyal Neuman**. *Scaling properties of a moving polymer*.

We set up an SPDE model for a moving, weakly self-avoiding polymer with intrinsic length J taking values in $(0, \infty)$. Our main result states that the effective radius of the polymer is approximately $J^{5/3}$; evidently for large J the polymer undergoes stretching. This contrasts with the equilibrium situation without the time variable, where many earlier results show that the effective radius is approximately J .

For such a moving polymer taking values in \mathbf{R}^2 , we offer a conjecture that the effective radius is approximately $J^{5/4}$. (Received January 11, 2021)