

1067-Z1-1744 **Mikil Foss** and **Joe Geisbauer*** (s-jgeisba1@math.unl.edu), University of Nebraska-Lincoln,
203 Avery Hall, P.O. Box 880130, Lincoln, NE 68588-0130. *Partial Regularity for Parabolic
Systems with Subquadratic Growth*. Preliminary report.

We establish the partial Hölder continuity of solutions to quasilinear parabolic systems with subquadratic growth. The major feature of the result is establishing the partial regularity while only requiring the coefficients for the system to be continuous. To establish the result, we use DiBenedetto's intrinsic scaling to prove a decay estimate for a normalized excess functional. This decay estimate provides a control on the type of singularities that the spatial gradient of the solution might exhibit, which yields the partial continuity of the solution. (Received September 22, 2010)