1109-35-178 **Cao Tien Dat** and **Igor Verbitsky***, Department of Mathematics, University of Missouri, Columbia, MO 65211. *Quasilinear elliptic equations with singular gradient terms of natural growth.*

We give necessary and sufficient conditions for the existence of solutions to quasilinear elliptic equations with singular natural growth in the gradient terms of the type $-\Delta_p v = b\,\frac{|\nabla v|^p}{v} + \sigma$ on $\mathbf{R^n}$, where $v > 0$, $b > 0$, and $\sigma \geq 0$ is an arbitrary locally integrable function, or measure, and $\Delta_p u = \mathrm{div}(\nabla u|\nabla u|^{p-2})$ is the p-Laplacian, $p > 1$. Sharp global pointwise estimates and regularity properties of solutions are obtained. The results are new even in the classical case $p = 2$. This is joint work with Cao Tien Dat. (Received January 30, 2015)