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**The singular set of solutions to non-differentiable elliptic systems.** (English) Zbl 1142.35391  
*Arch. Ration. Mech. Anal.* 166, No. 4, 287-301 (2003).

Summary: We estimate the Hausdorff dimension of the singular set of solutions to elliptic systems of the type

$$-\operatorname{div} a(x, Du) = b(x, Du).$$

If the vector fields  $a$  and  $b$  are Hölder continuous with respect to the variable  $x$  with exponent  $\alpha$ , then the Hausdorff dimension of the singular set of any weak solution is at most  $n - 2\alpha$ .

**MSC:**

- 35J45 Systems of elliptic equations, general (MSC2000)
- 35A20 Analyticity in context of PDEs
- 35B65 Smoothness and regularity of solutions to PDEs
- 35D10 Regularity of generalized solutions of PDE (MSC2000)
- 35J60 Nonlinear elliptic equations

Cited in **79** Documents

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