EXISTENCE OF A NONTRIVIAL SOLUTION FOR A CLASS OF NONLINEAR ELLIPTIC SYSTEMS IN $\mathbb{R}^N$

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Abstract. Using a variational approach, we investigate the existence of a nontrivial weak solution for a class of general capillarity systems in $\mathbb{R}^N$. The proofs rely essentially on the mountain pass theorm with a weak version of the Palais-Smale conditions, due to Cerami.

Keywords. Weak solutions; existence; capillarity systems; variational methods.

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