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EXISTENCE RESULT FOR A SYSTEM OF TWO SEMILINEAR COUPLED POISSON EQUATIONS WITH ASYMPTOTICALLY LINEAR NONLINEARITIES

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Abstract. We establish the existence of at least one solution to a system of two semilinear coupled Poisson equations with asymptotically linear nonlinearities, without imposing the Ambrosetti-Rabinowitz condition or any of its refinements. The proof relies on a generalized Saddle Point Theorem due to Colin and the author [2].

Mathematics subject classification (2020): 35A15, 35J61, 58E05.
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