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A SYMMETRY RESULT FOR COOPERATIVE ELLIPTIC SYSTEMS WITH SINGULARITIES

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Abstract: We obtain symmetry results for solutions of an elliptic system of equation possessing a cooperative structure. The domain in which the problem is set may possess "holes" or "small vacancies" (measured in terms of capacity) along which the solution may diverge.

The method of proof relies on the moving plane technique, which needs to be suitably adapted here to take care of the complications arising from the vacancies in the domain and the analytic structure of the elliptic system.

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Key words: elliptic systems, moving plane method, symmetry of solutions.