

## Interior partial regularity for minimal $L^p$ -vector fields with integer fluxes

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**Abstract.** We use a new combinatorial technique to prove the optimal interior partial regularity result for  $L^p$ -vector fields with integer fluxes that minimize the  $L^p$ -energy. More precisely, we prove that the minimizing vector fields are Hölder continuous outside a set that is locally finite inside the domain. The results continue the program started in [25], but this paper is self-contained.

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