

A mass optimisation problem with convex cost

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A mass optimisation problem consists in finding the best distribution of a given elastic material in order to achieve the minimal compliance with prescribed external loads. Here the unknown mass distribution is subject to a given convex cost depending pointwise both on the underlying design region and on the conductivity properties of the material under analysis. After providing a relaxed formulation of the problem we investigate the existence and structure of the associated minimal measures. This is joint work with D. Lučić (Pisa) and G. Buttazzo (Pisa).