On the Lavrentieff Phenomenon for some Classes of Dirichlet Minimum Problems

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Abstract: Starting from some recent results of the authors, the Lavrentieff phenomenon between BV functions and smooth ones for the functional appearing in some classes of relaxed Dirichlet problems is studied. The occurrence of the phenomenon is first discussed by means of an example, and then completely characterized. Sufficient conditions implying the absence of the phenomenon are also proved, and some relaxation properties of the above functionals are also established.



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