ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

17. Control Theory and Optimization

1991 MS Classification: 49J45, 90A40, 90A80, 62P20
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Optimal solutions to some variational problems arising in Economics

Some variational problems arising in economics are studied. The first problem refers to an allocation process for a continuum of traders in the absence of the convexity condition. The second problem regards a continuous-time allocation process related to a consumption program without the concavity condition. In both cases some economic parameters are considered. The novelty of our formulations rely on a constraint of "unilateral-type" which makes more realistic our models.
Existence of solutions to both problems will be presented by applying a result recently established in a previous work. Such a result may be considered as one of Liapunov type but with the additional unilateral condition mentioned above. Part of these results is joint work with Jean-Pierre Raymond.