



Mathematics > Optimization and Control

Nondifferentiable variational principles in terms of a quantum operator

Ricardo Almeida, Delfim F. M. Torres

(Submitted on 20 Jun 2011)

We develop Cresson's nondifferentiable calculus of variations on the space of H^1 functions. Several quantum variational problems are considered: with and without constraints, with one and more than one independent variable, of first and higher-order type.

Comments: Submitted 24-Apr-2011; revised 18-Jun-2011; accepted 20-Jun-2011; for publication in Mathematical Methods in the Applied Sciences

Subjects: **Optimization and Control (math.OC)**; Mathematical Physics (math-ph)

MSC classes: 26A27, 26B20, 39A13, 49K05, 49K10, 49S05

Journal reference: Math. Methods Appl. Sci. 34 (2011), no. 18, 2231-2241

DOI: [10.1002/mma.1523](https://doi.org/10.1002/mma.1523)

Cite as: [arXiv:1106.3831v1](https://arxiv.org/abs/1106.3831v1) [math.OC]

Submission history

From: Delfim F. M. Torres [[view email](#)]

[v1] Mon, 20 Jun 2011 07:42:38 GMT (12kb)

[Which authors of this paper are endorsers?](#)

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

math.OC

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1106](#)

Change to browse by:

[math](#)

[math-ph](#)

References & Citations

- [NASA ADS](#)

Bookmark (what is this?)

