



universität
wien

Fakultät für Mathematik
Oskar-Morgenstern-Platz 1
A-1090 Vienna
Austria

<https://owos.univie.ac.at>

ONE WORLD OPTIMIZATION SEMINAR

March 1th 2021 @ 15:30 CET (Central European Time)

ANTONIN CHAMBOLLE

(CMAP / École Polytechnique Palaiseau)

Derivatives of Solutions of Saddle-Point Problems

Abstract. In a recent paper, we have been interested in optimizing the quality of the solutions of convex optimization problems among a class of consistent approximations of the total variation. Such a problem requires an efficient way to derivate a loss function with respect to the solution of a convex problem, computed by an iterative algorithm for which classical back-propagation is not always possible, due to memory limitation. We will describe in this talk a simple way to compute the adjoint states which allows to estimate such gradients, and discuss issues relative to the smoothness of the objective.

Joint work with T. Pock (TU Graz).

The link of the zoom-room of the meeting and the corresponding password will be announced the day before the talk on the mailing list of the seminar, to which one can subscribe on <https://owos.univie.ac.at>.