

TIME PARALLELIZED ASSIMILATION

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The coupling of time parallelization procedures with control, optimization and inverse problem solving procedures has been the subject of numerous works for the last ten years. A common point of the proposed approaches is that they apply to problems where the time interval is fixed a priori, which allows to decompose it in a rather simple way. In the case of data assimilation procedures, this characteristic does not exist in general, since the data can arrive in an uninterrupted way. In this talk, we present a general approach to tackle this problem. This method consists in introducing one of the data processing windows, on which the time parallelization is performed, and in defining a stopping criterion guaranteeing the preservation of the convergence rate of the considered observer.