

The Two-Point Flux Approximation scheme for parabolic problems

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The purpose of this talk is to introduce a first finite-volume scheme in the deterministic framework in order to use, in a second step, these results in the stochastic framework.

We will start by defining an admissible mesh for the two-point-flux approximation (TPFA) scheme and present the different notations useful for the analysis. We will then see how to discretize the different discrete operators and we will apply this scheme to the case of a general deterministic parabolic equation.