
Automatic Differentiation for Complex options and algorithms

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Abstract

Automatic differentiation of computer programs gives an exact evaluation of sensitivities ; there are two approaches, the so called direct and reverse modes. Both are callable by linking C++ librairies based on operator overloading.

In this talk we shall present the method, discuss the computing cost and when to use the direct or reverse mode.

We will also discuss the use of automatic differentiation together with multilevel Monte-Carlo.

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