KO-MIX

Interní seminář pracovníků KMD

Srdečně zveme pracovníky KMD, KAP a další zájemce z řad veřejnosti
na přednášku pořádanou v rámci odborného semináře *KO-MIX*

A discontinuous Galerkin method for two-dimensional PDE models of selected options

Přednáší: **RNDr. Jiří HOZMAN, Ph.D.**
(KMD, FP TU v Liberci)

Termín: **Pondělí 12. října 2015, 14:20 hodin**

Místo konání: **Kabinet KMD a KAP**
(Univerzitní nám. 1410/1, Liberec, budova G areálu TUL - 4. patro)

Abstrakt přednášky:

The valuation of a wide range of option contracts using the different financial models has acquired increasing popularity in modern financial theory and practice. This lecture is dedicated to the option pricing problem, governed by the two-dimensional partial differential equation. The whole system is discretized by the discontinuous Galerkin method combined with the implicit Euler scheme for the temporal discretization. Two selected options are mentioned here such as the basket options dependent on two risk sources and the Asian options with continuous arithmetic averaging over one underlying asset. The practical numerical results are presented on real DAX option market data.

References

[1] J. Hozman, T. Tichý: *A discontinuous Galerkin method for pricing of two-asset options*. In: 33rd International Conference Mathematical Methods in Economics, ZČU Plzeň, Cheb, 2015 (submitted).

[2] J. Hozman, T. Tichý, D. Cvejnová: *A discontinuous Galerkin method for two-dimensional PDE models of Asian options*. In: 13th International Conference of Numerical Analysis and Applied Mathematics, AIP Conference Proceedings, Rhodes, Greece, 2015 (submitted).

Za organizátory semináře srdečně zve

RNDr. Václav Finěk, Ph.D.