Einladung zum Gastvortrag
im Rahmen des InnoLecture-Kolloquiums

Am Freitag, 09.07.2010, 13.30 Uhr, spricht
in Gebäude C6.3, Hörsaal 1 (E08)

Prof. Dr. Michel Fliess
Laboratoire d’Informatique
de l’École Polytechnique, Palaiseau &
INRIA project ALIEN
zum Thema

On the existence of trends in financial time series and
some of its consequences

We are settling in this joint work with C. Join (Nancy) a longstanding quarrel
in quantitative finance by proving the existence of trends in financial time
series thanks to a theorem due to P. Cartier and Y. Perrin, which is expressed
in the language of nonstandard analysis (Integration over finite sets, F. & M.
Diener (Eds): Nonstandard Analysis in Practice, Springer, 1995, pp. 195-
204). Those trends, which might coexist with some altered random walk
paradigm and efficient market hypothesis, seem nevertheless difficult to
reconcile with the celebrated Black-Scholes model. They are estimated via
recent techniques stemming from control and signal theory. Several quite
convincing computer simulations on the forecast of various financial
quantities are depicted. We conclude by exploring various possible
applications in financial engineering and by discussing the rôle of probability
theory.

Alle Interessenten sind herzlich eingeladen.

Univ.-Prof. Dr.-Ing. habil. J. Rudolph