

# **Argumentation as non-monotonic logic formalism in Analyzing Market Irrationality**

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Mikołaj Podlaszewski obtained M.Sc. in November 2010 in Computer Science from the University of Luxembourg. From April 2011 he continues his work as a PhD candidate on an AFR project entitled “Logical Approaches for Analyzing Market Irrationality – computational aspects” under the supervision of Prof. Dr. Leon van der Torre and Dr. Martin Caminada.

LAAMI (Logical Approaches for Analyzing Market Irrationality) project aims to apply the paradigm of agent-based computational economics (Tesfatsion and Judd, 2006) to model complex reasoning processes in a market setting. Basically we assume a market in which the main product is information and complex analysis, on an issue that does not provide immediate feedback from the objective world. We are interested in examining under which conditions the information providers (“consultants”) have sufficient incentives to provide good quality analysis to their clients. The preliminary results of a prototype software simulator (Staab and Caminada, 2010) as well as other research (Mathis et al, 2009) indicate that these incentives are not always strong enough to rule out providing low quality information. If such becomes the pervasive strategy of the consultants, there are consequences regarding the informedness not only of individual information consumers (“clients”) but also for the system as a whole, since unfounded collective beliefs can easily lead to various forms of market imperfections. In essence, we would like to explain these market imperfections by examining how markets can become ill-informed. For this, we use the technique of agent-based simulation.