

A RANDOM WALK APPROACH TO THE PRINCIPAL-AGENT PROBLEM

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Topic #9: *Nonstandard Methods in Economics and Finance.*

[Joint work with James A. Mirrlees.¹]

The subject of this paper is incentive contracts in dynamic situations, where output, shared by contract between principal and agent is a stochastic process influenced only by the agent's effort over time.

We will discuss a new approach, via nonstandard analysis, to the relationship between discrete time and continuous-time models.

Moreover, since a major question in the literature is whether simple contracts are optimal we will show that some of the results to be described throw new light on that issue.

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