



**RESEARCH ARTICLE**

## **Stimulus-Response Behavior of Moving Agents**

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*Abstract— This paper considers the fact of designing the stimulus-response behavior of spatial moving agents as a Command pattern-based approach. By decoupling the way agents receive the information from the actions they perform to react to that information, we find a design that is scalable and adaptable, as well as beneficial at the time of making improvements (i.e. for performance). We discuss such advantages and give some theoretical considerations and guidelines on how each component should be used and the relationships established among them. The design may be treated as part of the kernel of a more sophisticated system, like a decision engine, but it does not cope with it by itself. We present a case study where the kernel of the design is evolved and applied to a particular problem.*

***Key Terms: - Autonomous Agents; Command Pattern; Stimulus-Response Behavior***

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