1 Introduction

Although financial markets with informational asymmetries have been widely discussed in the market microstructure literature (see [5] and [13] for a review), the characterization of the optimal trading strategy of an investor who posses superior information has been, until lately, largely unaddressed by the mathematical finance literature.

In recent years, with the development of enlargement of filtrations theory (see [11]), models of so called insider trading have been gaining attention in mathematical finance as well (see e.g. [1], [4] and [9]). The salient assumptions of these models are that *i*) the informational advantage of the insider is a functional of the stock price process (e.g. the insider might know in advance the maximum value the stock price will achieve), and that *ii*) the insider does not affect the stock price dynamics. But in fact, since equilibrium stock prices should clear the market, and thus depend on the future random demand of market participants, assuming that the informational advantage of the insider is a functional of the price process implies that she either knows the future demand processes of *all market participants,* or she knows that the price will – exogenously – converge to a fundamental that is known to her. Since the assumption of an omniscient insider is unrealistic, one would have to assume the latter. Nevertheless, since the presence of an insider – by assumption in these models– does not affect the price process, this raises the question of what makes the price converge to its fundamental value without information being released to the market.

Thus, from the market microstructure point of view, these modeling assumptions translate into *i*) imposing strong efficiency of the markets even without an insider providing, through her trading, information to the market – that is, assuming a priori that the price will converge to the fundamental value – and that *ii*) the less informed agents are *not* fully rational, since they do not try to infer the insider's private signal from market data (since there is no feedback from insider trading to equilibrium price).

Part of the mathematical finance literature has tried to address these shortcomings by considering the informational content of stock prices, and optimal information-based trading, in a rational expectations equilibrium framework (see e.g. [2], [7]). In these models – to preserve tractability –