

On observers, a meeting of many view points and applications

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Depending on the field of applications, they are called observers or filters or soft sensors or state re-constructors or data assimilation or . . . But they are all answers to the same problem: given measurements (= partial information), try to estimate internal variables of a dynamical system. For this they incorporate some kind of model of this system and require some kind of a priori information on these internal variables. We shall briefly survey the main approaches to this problem both stochastic and deterministic, and enter more deeply in the technicalities of some of them.