Exact Modelling of Scalar 2d Arrays

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Abstract: In this paper we analyse the problem of modelling a noise free finite 2D scalar array. We introduce the concept of unfalsified model and of undominated unfalsified model. We give some methods for verifying if a model is unfalsified and we study the properties of undominated unfalsified models. We define moreover a special class of models that are called coroborated and we give a condition ensuring the uniqueness of the corroborated undominated unfalsified model. Finally we show how to obtain such model, when it exists.