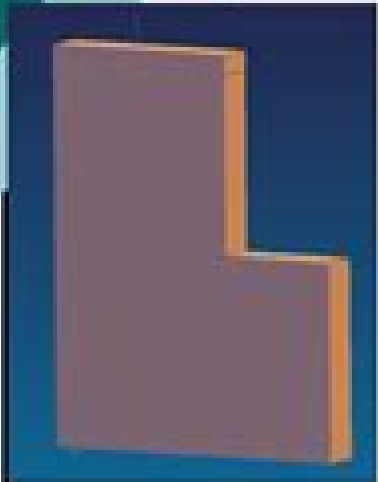
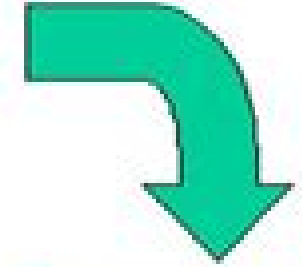
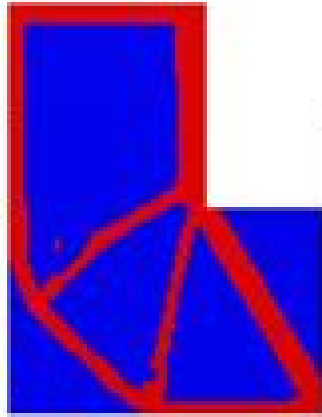


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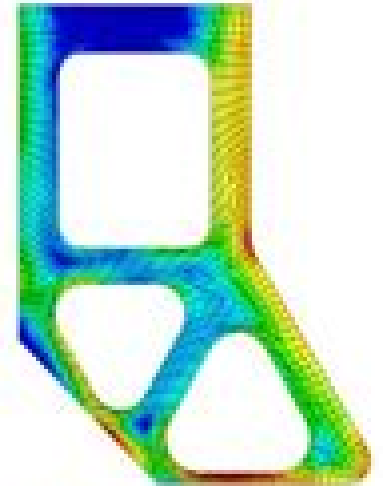
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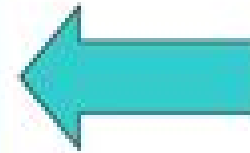
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Shape Optimization



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Muthaukumar Balachandran



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field theory and advanced computational electromagnetics electrical machines and transformers optimization and interactive design electromagnetics in materials coupled field and electromagnetic components in mechatronics induction heating systems bioelectromagnetics and electromagnetics in education **Applied Mechanics Reviews**, 1997 **Knowledge Incorporation in Evolutionary Computation** Yaochu Jin, 2004-10-20 Incorporation of a priori knowledge such as expert knowledge meta heuristics and human preferences as well as domain knowledge acquired during evolutionary search into evolutionary algorithms has received increasing interest in the recent years It has been shown from various motivations that knowledge incorporation into evolutionary search is able to significantly improve search efficiency However results on knowledge incorporation in evolutionary computation have been scattered in a wide range of research areas and a systematic handling of this important topic in evolutionary computation still lacks This edited book is a first attempt to put together the state of art and recent advances on knowledge incorporation in evolutionary computation within a unified framework Existing methods for knowledge incorporation are divided into the following five categories according to the functionality of the incorporated knowledge in the evolutionary algorithms 1 Knowledge incorporation in representation population initialization combination and mutation 2 Knowledge incorporation in selection and reproduction 3 Knowledge incorporation in fitness evaluations 4 Knowledge incorporation through life time learning and human computer interactions 5 Incorporation of human preferences in multi objective evolutionary computation The intended readers of this book are graduate students researchers and practitioners in all fields of science and engineering who are interested in evolutionary computation The book is divided into six parts Part I contains one introductory chapter titled A selected introduction to evolutionary computation by Yao which presents a concise but insightful introduction to evolutionary computation

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