Finite Element Software (FES) is an open source C++ framework for the development of "ad-hoc" simulation software aimed to rapid implementation of novel numerical methods based on the weighted residuals mathematical approach. Able to interact with geometries and generate meshes, one can straightforwardly implement numerical assembly and solve code to achieve a fast and robust simulations. This book shows how a few notions of mathematics and physics, and some coding skills, enable the development of powerful and efficient numerical tools relying on freely available libraries. Numerical simulation has never been as accessible to everyone as it is nowadays, pushing further the boundaries of simulation technologies development. Easy to use development codes enable a faster real-world models validation, a rough trial-and-error phase, through physical measurements. This book presents some results achieved with FES for electromagnetics problems, and invites the reader to extend and adapt the code to his challenges with no limitations of any kind.

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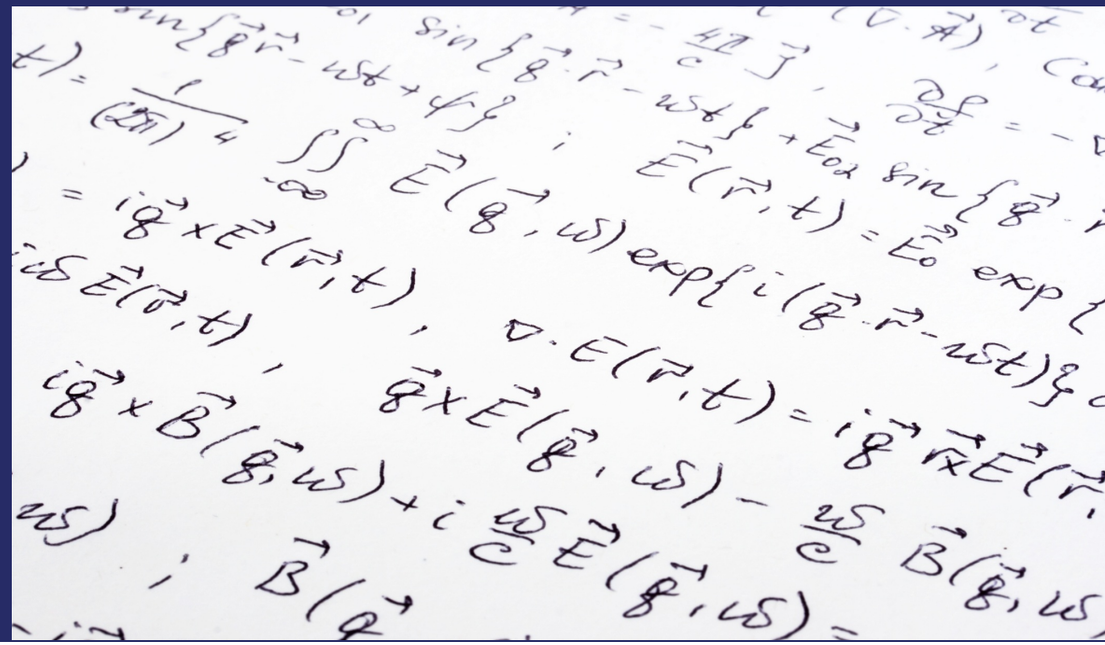
Finite Elements in Electromagnetics

Ntibarikure



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Contributions to the Art of Finite Elements in Electromagnetics

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