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GSvit in a nutshell

GSvit is an open source software for electromagnetic field propagation calculations via Finite Difference in Time Domain method (FDTD). In this numerical technique, electric and magnetic field values (vectors) in some computational volume are calculated iteratively, solving Maxwell equations, step by step. In order to do this, computational volume needs to be discretized very densely, which affects computational demandness of FDTD, being very large both in processor time and in memory.

Within GSvit

There are many other FDTD packages available elsewhere, either commercial (e.g. [Lumerical](#)) or open source (e.g. [Meep](#)). We don't promise that GSvit overcomes any of them in any sense, even if we do our best to do so.

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Last update: **2018/01/24 08:14**