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Ways to improve the productivity of fire simulation tools on modern equipment

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One of the problems for all countries of the world are fires, in particular,fires in the premises. For the creation and effective use of firefighting means, it is necessary to calculate possible scenarios for the development of fires in specific conditions. At the present time, there are various tools for computer modeling of fires, but they have disadvantages - they have either a large error or a low performance.
In this paper, mathematical models of fires and possible ways to improve fire modeling tools are considered, in particular, parallelization on GPU and distribution to multiple computers.

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