



Just running a live dynamics?

Angular resolution in space  $\Rightarrow$  Time resolution  $\sim f_s$

Events of interest:  $\sim 1/\text{ms}$ ; on average  $10^{12}$  time steps

Modern computers:  $10^8$  time steps (100ns) per day!

$10^4$  days ( $\sim 30$  years) ... for one event!

# Just run naïve dynamics?

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reactions

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reactions

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fluids

solvent effects

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