Light curve modelling of eclipsing binaries

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To study the light variations of eclipsing binaries it is necessary to create an ensemble of model light curves. The models of binary systems contain numerous parameters and the denser the surface grid is the more accurate our results will be, so solving this problem needs significant computing resources, thus the parallelization seems quite obvious.

Continuing our ongoing work we implemented into our code the Roche model, so now we can calculate light curves of close binaries also where the stellar surfaces due to tidal forces differs from spherical. We also gained a magnitude of speed, in some cases, the calculations on GPU can be more than hundred times faster than on CPU. On the 7th GPU day we will present the new features of our code.