

**Francesco Vecil**

*Implementation on a high-performance platform of a hybrid parallel solver for DG-MOSFETs*

We use a deterministic model to simulate a 10 nm Double Gate Metal Oxide Field-Effect Transistor (DG-MOSFET), a very common kind of logical unit. The model we use is very accurate from the physical point of view, and is meant as a reference result for macroscopic solvers, but at the same time it is very costly to simulate. Thus, a hybrid CUDA-OpenMP parallelization is being realized. We shall present the results obtained so far.