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Heterogeneous computing. What is it and do we need it?

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Heterogeneous computing promises more compute power while consuming less energy. However employing GPUs and Xeon Phi's come with a hefty price tag. Only software that is highly adapted to these new architectures will gain any performance increase. In my talk I will address these questions:

- What is heterogeneous computing?
- How can it help producing better results faster?
- Is it worthwhile exploring for the broader audience?

And finally I will try to shed some light on the question whether the future will really be heterogeneous or not.