

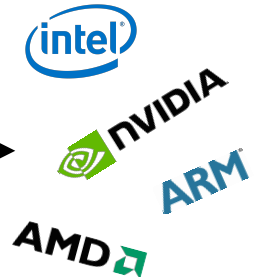
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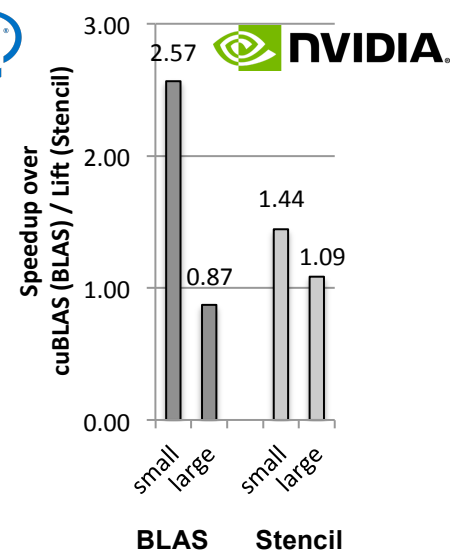
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- 1) applications;
- 2) hardware architectures;
- 3) input sizes.

Machine Learning
Stencils
Skeletons
Biology
Linear Algebra (BLAS)
Physics


$$\text{md_hom}(f, (\otimes_1, \dots, \otimes_d))(a[N_1] \dots [N_d]) = \otimes_{i_1 \in [1, N_1]} \dots \otimes_{i_d \in [1, N_d]} f(a[i_1] \dots [i_d])$$

Our preliminary results show competitive and often even significantly better performance than the related work:



More about md_hom: A. Rasch, and S. Gorlatch, "Multi-Dimensional Homomorphisms and Their Implementation in OpenCL." *International Journal of Parallel Programming*, pp. 101-119, 2018