# Hartmut Kaiser

List of Publications by Year
in descending order

| 25 papers | 331 citations | 1478505<br>6 h-index | 1872680<br>6 g-index |
|---|---|---|---|
| 26 all docs | 26 docs citations | 26 times ranked | 160 citing authors |

| # | Article | IF | Citations |
|---|---------|----|-----------| 
| 1 | ParalleX An Advanced Parallel Execution Model for Scaling-Impaired Applications. , 2009, , . | | 104 |
| 2 | HPX - The C++ Standard Library for Parallelism and Concurrency. Journal of Open Source Software, 2020, 5, 2352. | 4.6 | 55 |
| 3 | Preliminary design examination of the ParalleX system from a software and hardware perspective. Performance Evaluation Review, 2011, 38, 81-87. | 0.6 | 26 |
| 4 | Improving the scalability of parallel <i>N</i>-body applications with an event-driven constraint-based execution model. International Journal of High Performance Computing Applications, 2012, 26, 319-332. | 3.7 | 22 |
| 5 | Harnessing billions of tasks for a scalable portable hydrodynamic simulation of the merger of two stars. International Journal of High Performance Computing Applications, 2019, 33, 699-715. | 3.7 | 16 |
| 6 | <scp>octo-tiger</scp>: a new, 3D hydrodynamic code for stellar mergers that uses <scp>hpx</scp> parallelization. Monthly Notices of the Royal Astronomical Society, 2021, 504, 5345-5382. | 4.4 | 15 |
| 7 | Using SYCL as an Implementation Framework for HPX.Compute. , 2017, , . | | 14 |
| 8 | Asynchronous Execution of Python Code on Task-Based Runtime Systems. , 2018, , . | | 12 |
| 9 | An asynchronous and task-based implementation of peridynamics utilizing HPXâ€"the C++ standard library for parallelism and concurrency. SN Applied Sciences, 2020, 2, 1. | 2.9 | 10 |
| 10 | Methodology for Adaptive Active Message Coalescing in Task Based Runtime Systems. , 2018, , . | | 8 |
| 11 | Deploying a Task-based Runtime System on Raspberry Pi Clusters. , 2020, , . | | 7 |
| 12 | HPX Smart Executors. , 2017, , . | | 6 |
| 13 | Runtime Adaptive Task Inlining on Asynchronous Multitasking Runtime Systems. , 2019, , . | | 6 |
| 14 | Beyond Fork-Join: Integration of Performance Portable Kokkos Kernels with HPX. , 2021, , . | | 5 |
| 15 | Octo-Tigerâ€™s New Hydro Module and Performance Using HPX+CUDA on ORNLâ€™s Summit. , 2021, , . | | 5 |
| 16 | Towards a Scalable and Distributed Infrastructure for Deep Learning Applications. , 2020, , . | | 4 |
| 17 | Integration of CUDA Processing within the C++ Library for Parallelism and Concurrency (HPX). , 2018, , . | | 3 |
| 18 | Scheduling Optimization of Parallel Linear Algebra Algorithms Using Supervised Learning. , 2019, , . | | 3 |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 19 | Performance Analysis of a Quantum Monte Carlo Application on Multiple Hardware Architectures Using the HPX Runtime. , 2020, , . | | 3 |
| 20 | Parallel SIMD - A Policy Based Solution for Free Speed-Up using C++ Data-Parallel Types. , 2021, , . | | 3 |
| 21 | PXFS: A persistent storage model for extreme Scale. , 2014, , . | | 1 |
| 22 | Memory reduction using a ring abstraction over GPU RDMA for distributed quantum Monte Carlo solver. , 2021, , . | | 1 |
| 23 | Towards Distributed Software Resilience in Asynchronous Many- Task Programming Models. , 2020, , . | | 1 |
| 24 | Distributed Asynchronous Array Computing with the JetLag Environment. , 2020, , . | | 1 |
| 25 | Towards superior software portability with SHAD and HPX C++ libraries. , 2022, , . | | 0 |