Karlsruhe Institute of Technology

Correlation of Benchmark Results, Job Performance, and the Number of Job Slots per Core (Update)

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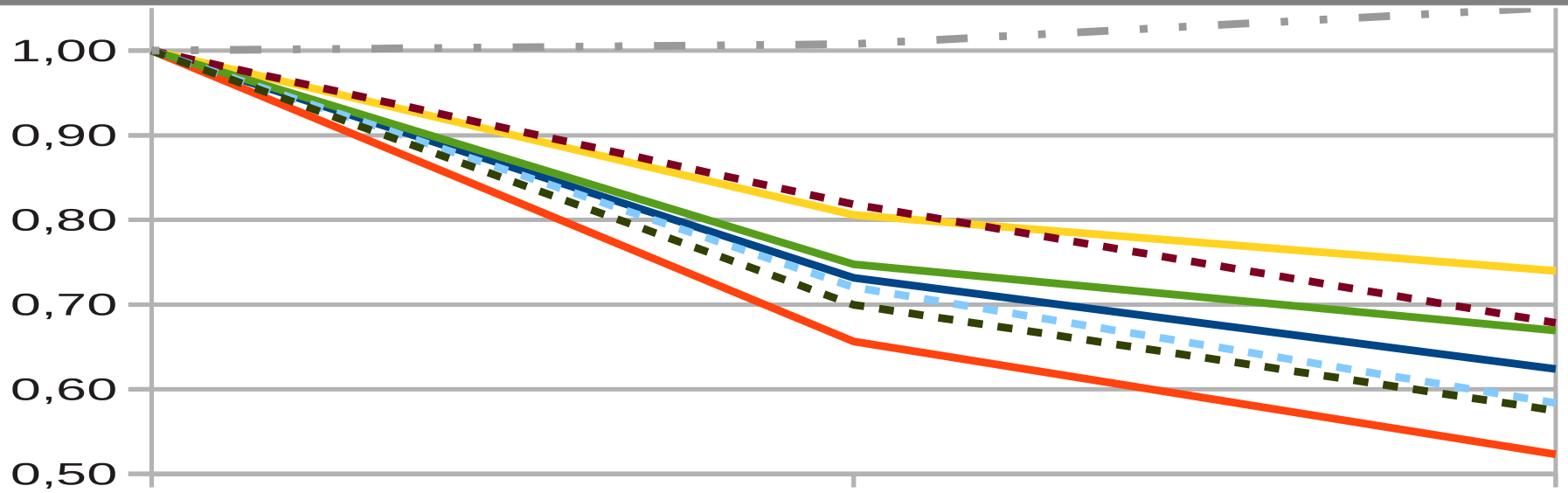
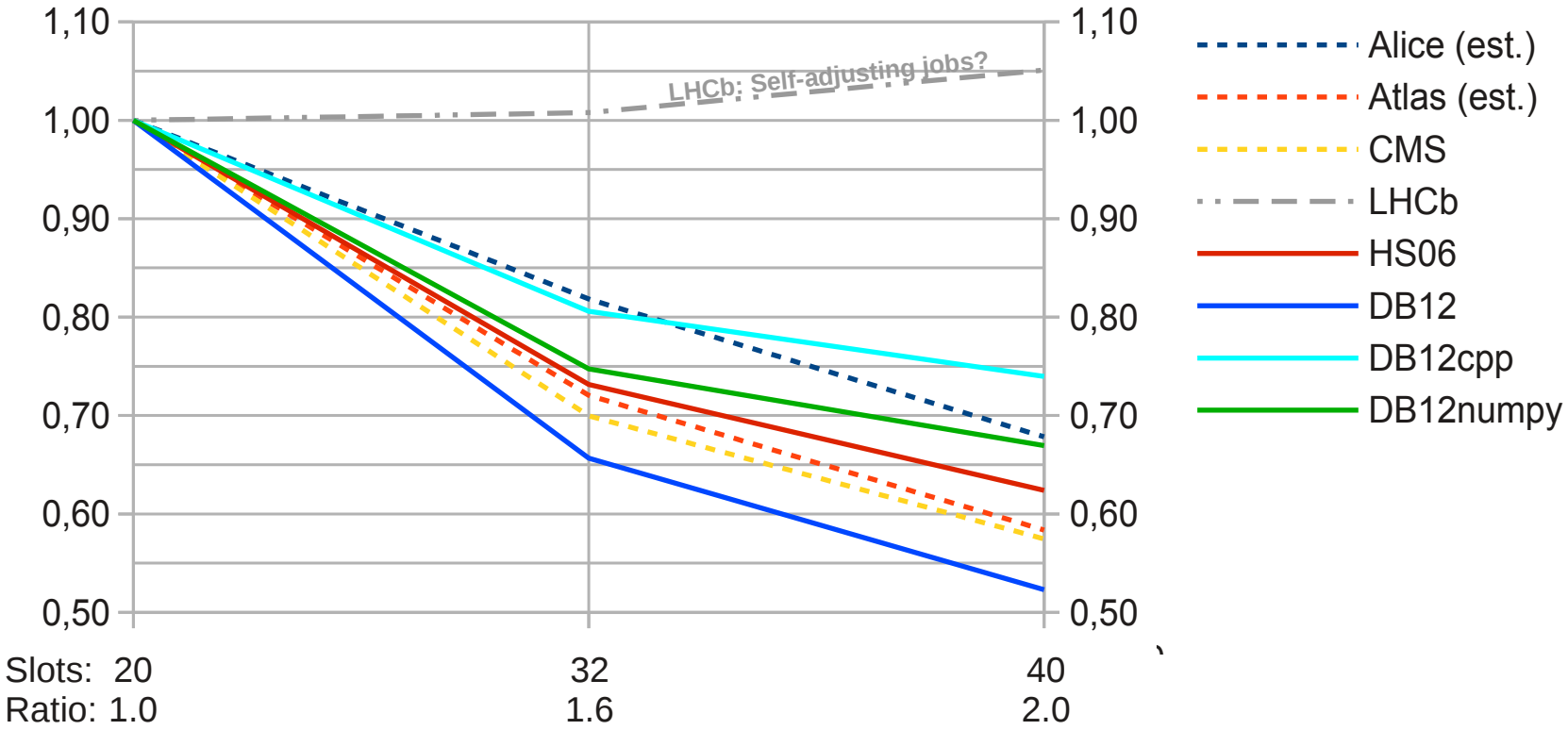


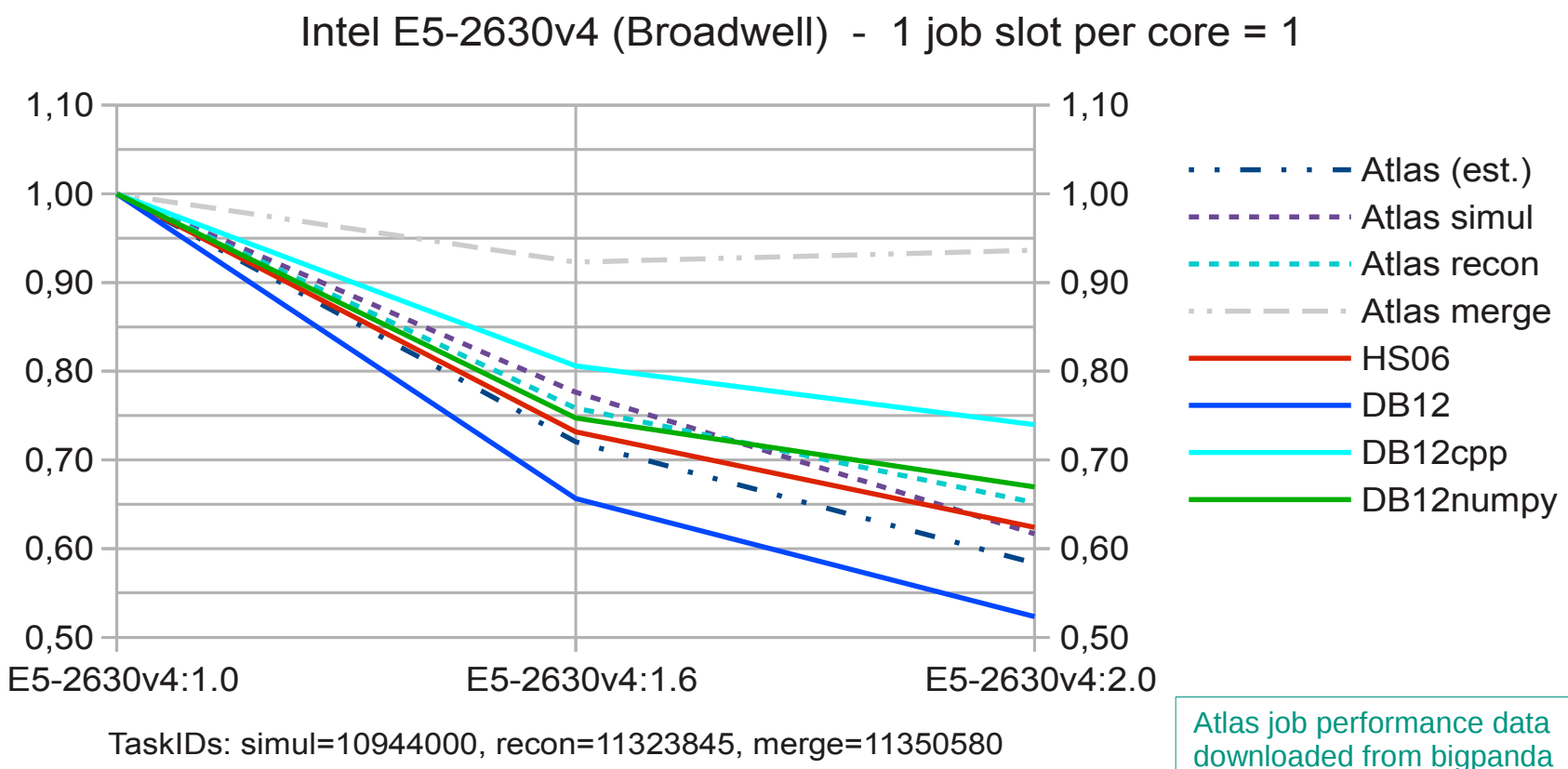
Estimated Job Performance vs. Benchmarks

Hardware Platform:
Intel Xeon E5-2630v4 (Broadwell) – 2.2 GHz, 10-core – 2 sockets
RAM per job slot ≥ 2.4 GB



Estimated Job Performance, Benchmarks, and Job Performance – Atlas

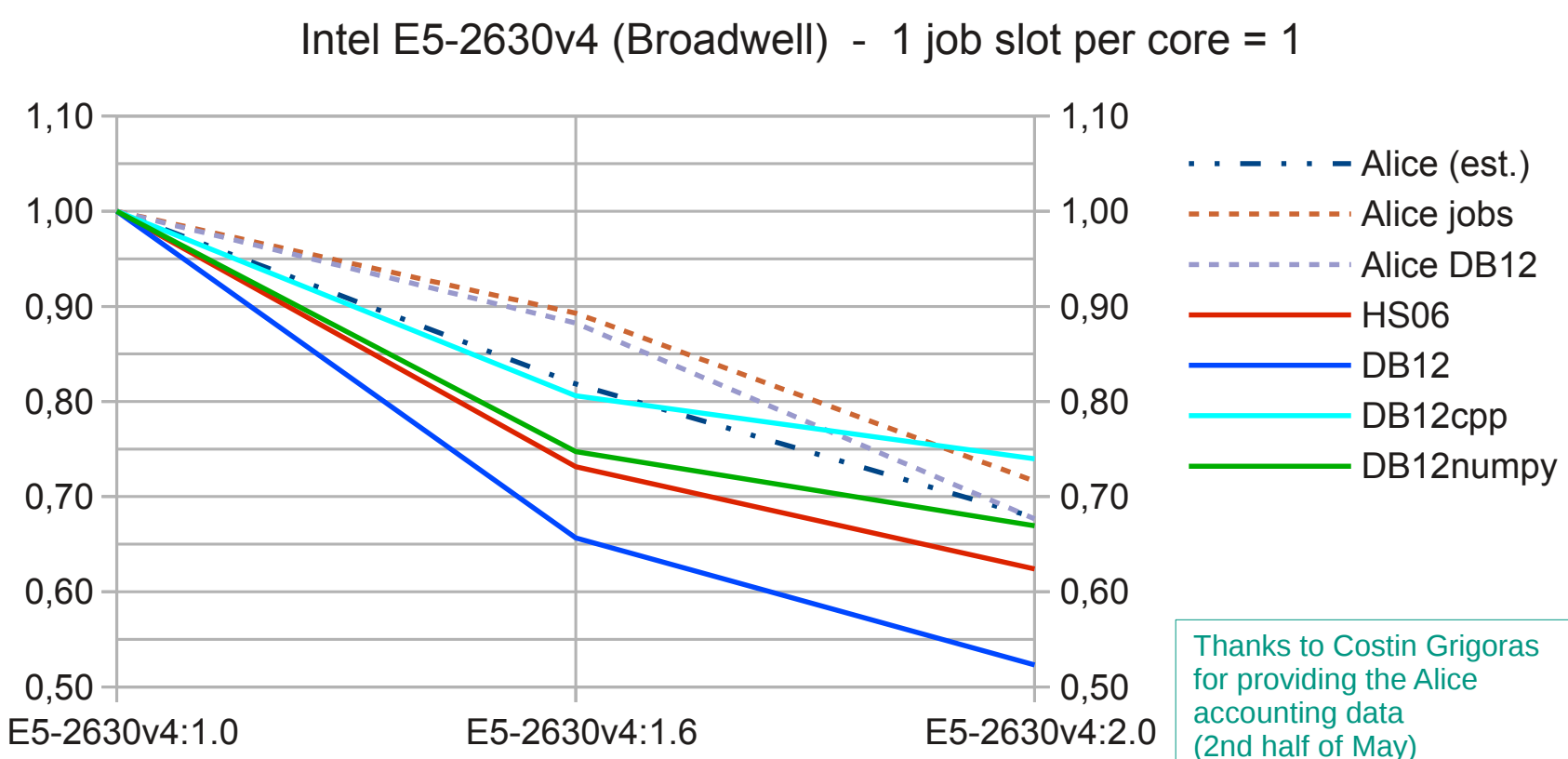
Benchmark Scores (per Job Slot), and Atlas Job Performance



Atlas job performance data downloaded from bigpanda interface

Estimated Job Performance, Benchmarks, and Job Performance – Alice

Benchmark Scores (per Job), and Alice Job Performance



Thanks to Costin Grigoras for providing the Alice accounting data (2nd half of May)

Conclusions

- Quick check for WN model E5-2630v4 (Broadwell) at GridKa, configured with 20, 32, or 40 job slots (1.0, 1.6, or 2.0 slots per core)
  - ➔ Atlas (job performance data from bigpanda):
    - Very good correlations of Atlas jobs with the estimated Atlas performance (jeditaskid's: simul 10944000, recon 11323845)
    - Very like HS06 and DB12numpy-at-boot
      - Remark: talking about effects of varying the ratio of job slots per core, not comparing different hardware architectures!
    - Outlier: merge (11350580)

Conclusions

- Quick check for WN model E5-2630v4 (Broadwell) at GridKa, configured with 20, 32, or 40 job slots (1.0, 1.6, or 2.0 slots per core)
  - ➔ Alice (many thanks to C. Grigoras for providing the job data):
    - Good correlations of Alice jobs with the estimated Alice performance, spread of around 10% at ratio 1.6 slots per core
    - Job performance (and estimate) better than all benchmarks except DB12cpp-at-boot at ration of 2.0

Postscript

- Comparing Costin's DB12-in-job values with the corresponding DB12-at-boot scores – please, differentiate between both flavors!