



IHEPCCC/HEPiX benchmarking WG Status update

Helge Meinhard / CERN-IT
LCG Management Board

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Progress since December

- Just an update to my presentation on 11-Dec-2007
- Regular phone conferences
 - About once every two weeks, more frequently when needed
- Dedicated test cluster at CERN
- Some more machines made available for benchmarking elsewhere (DESY Zeuthen, RAL)
- Agreement on boundary conditions (OS, gcc, options, how to run SPECcpu)
- Active participation by experiments
 - Atlas: Alessandro di Salvo, Franco Brasolin
 - CMS: Gabriele Benelli et al.
 - Alice: Peter Hristov
 - LHCb: Hubert Degaudenzi



Benchmarking cluster at CERN

- 7 machines (rather) permanent:
 - 2 x Nocona 2.8 GHz, 2 x 1 GB, E7320 board
 - 2 x Irwindale 2.8 GHz, 4 x 1 GB, E7320 board
 - 2 x Opteron 275, 4 x 1 GB, AMD-8132/8111 board
 - 2 x Woodcrest 2.66 GHz, 8 x 1 GB, 5000P board
 - 2 x Woodcrest 3 GHz, 8 x 1 GB, 5000P board
 - 2 x Opteron 2218, 8 x 1 GB, HT2000/1000 board
 - 2 x Clovertown 2.33 GHz, 8 x 2 GB, 5000P board
- Some temporary machines
 - Similar to some of the above, with different memory config

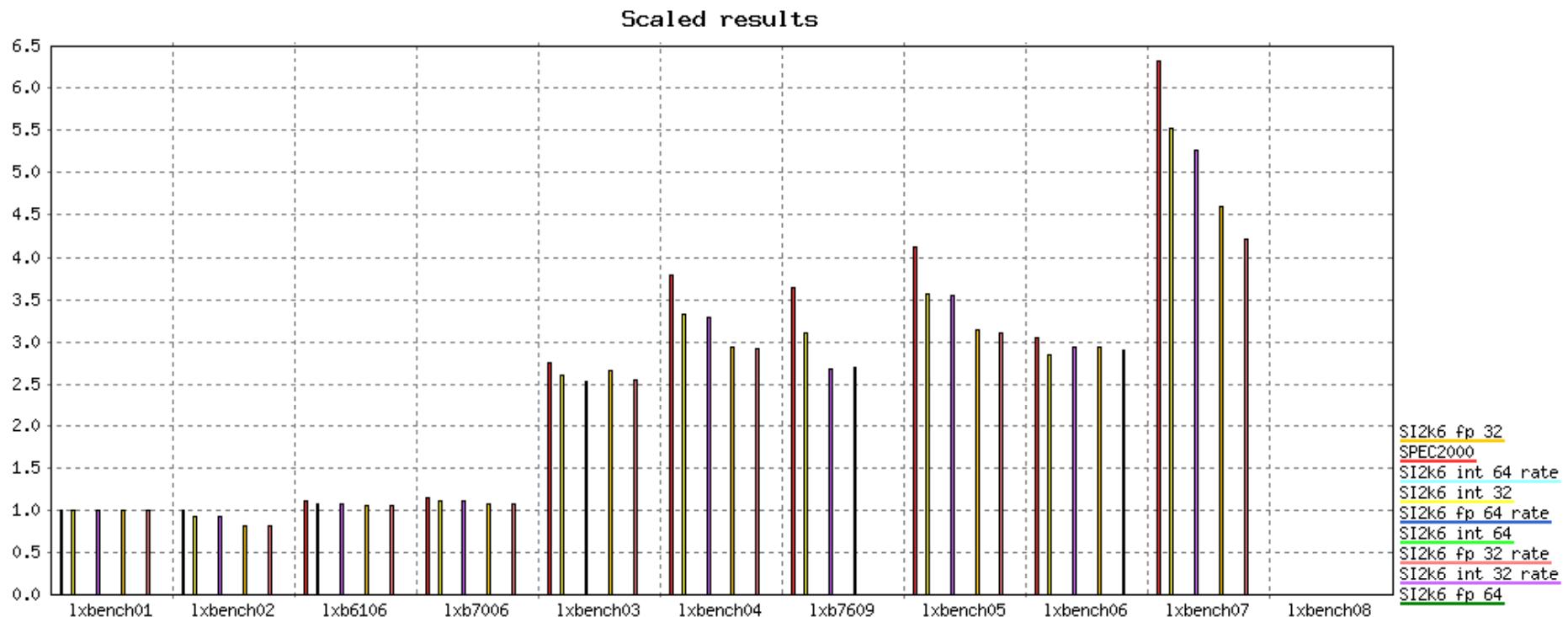


Benchmarking machines elsewhere

- DESY Zeuthen:
 - 2 x Harpertown 2.83 GHz
- RAL:
 - 2 x AMD Barcelona – not yet stable

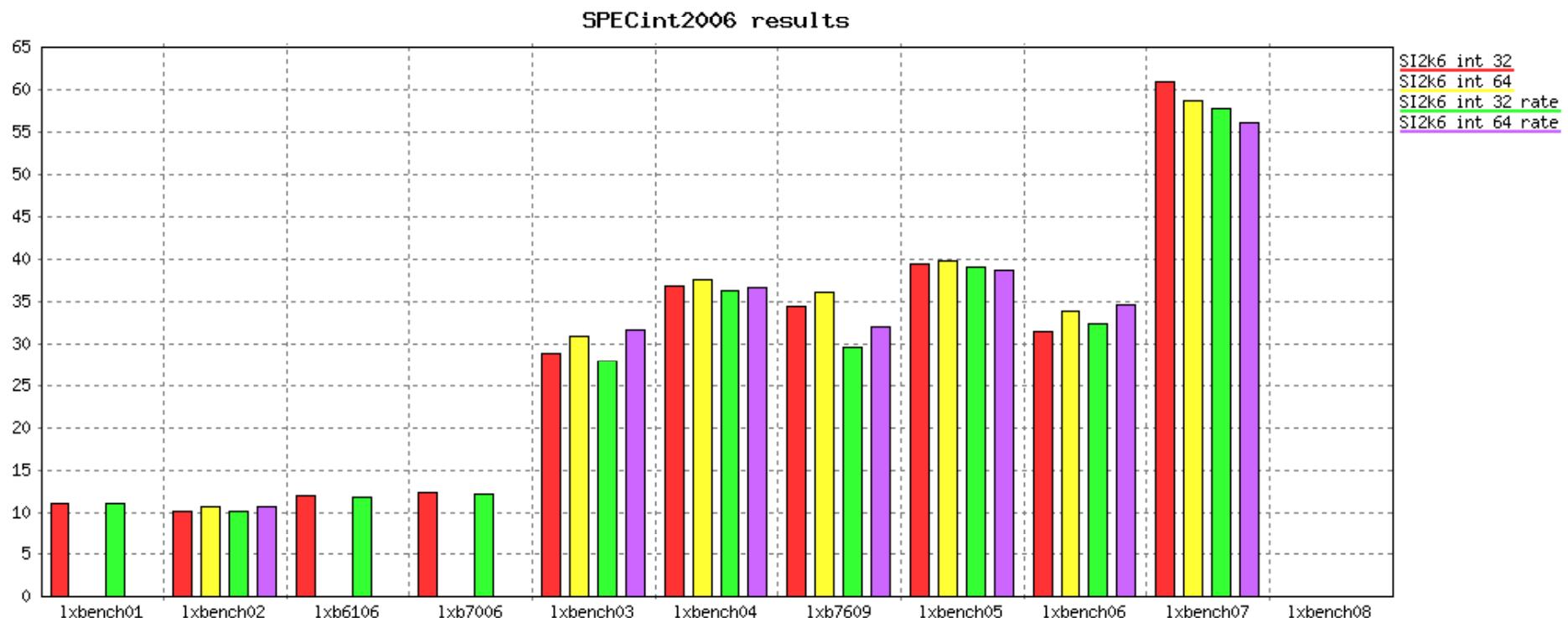


SPEC benchmarks (1)



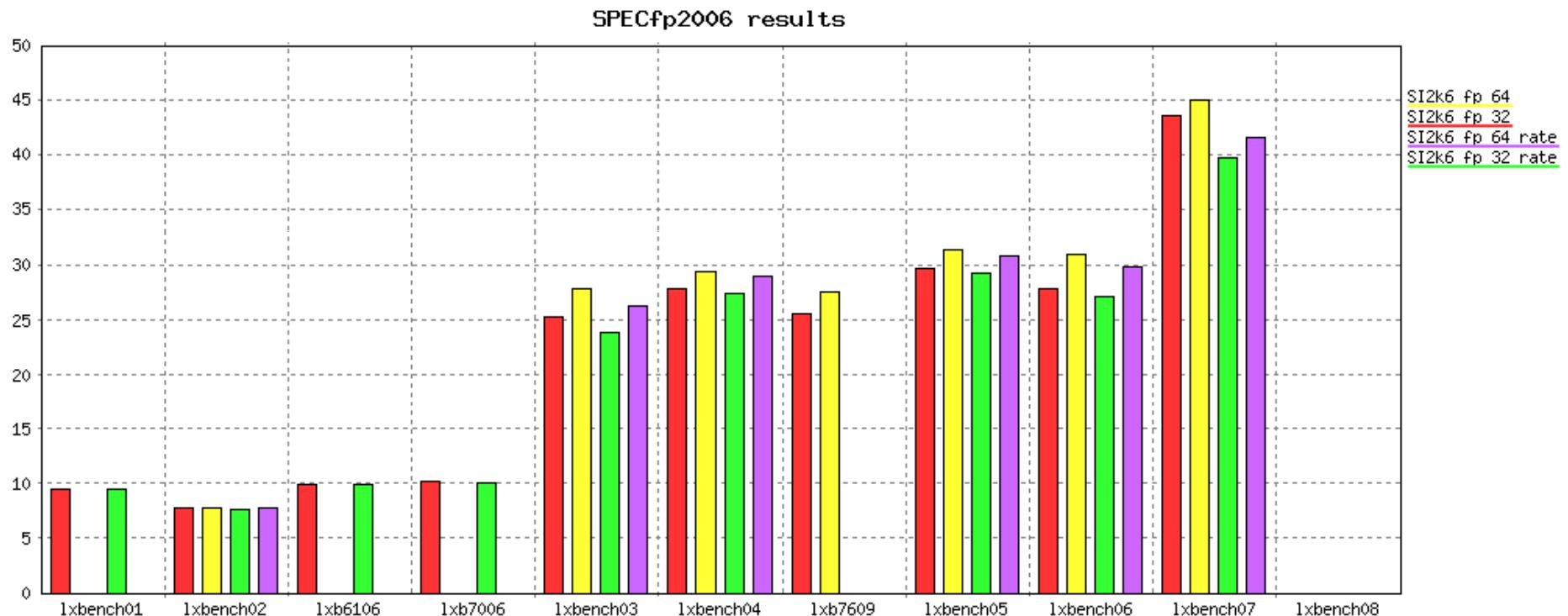


SPEC benchmarks (2)





SPEC benchmarks (3)

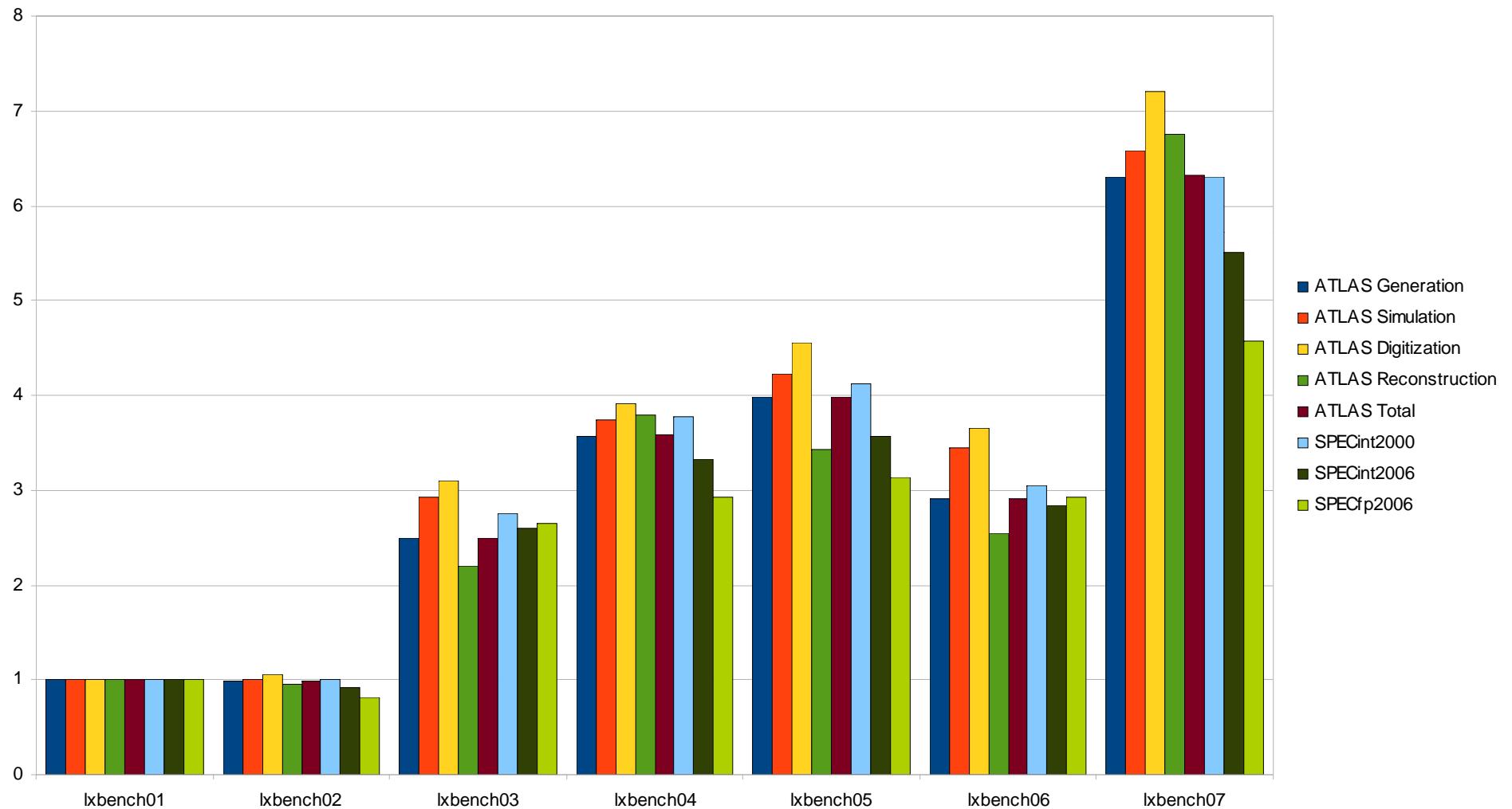




ATLAS benchmarks (preliminary)

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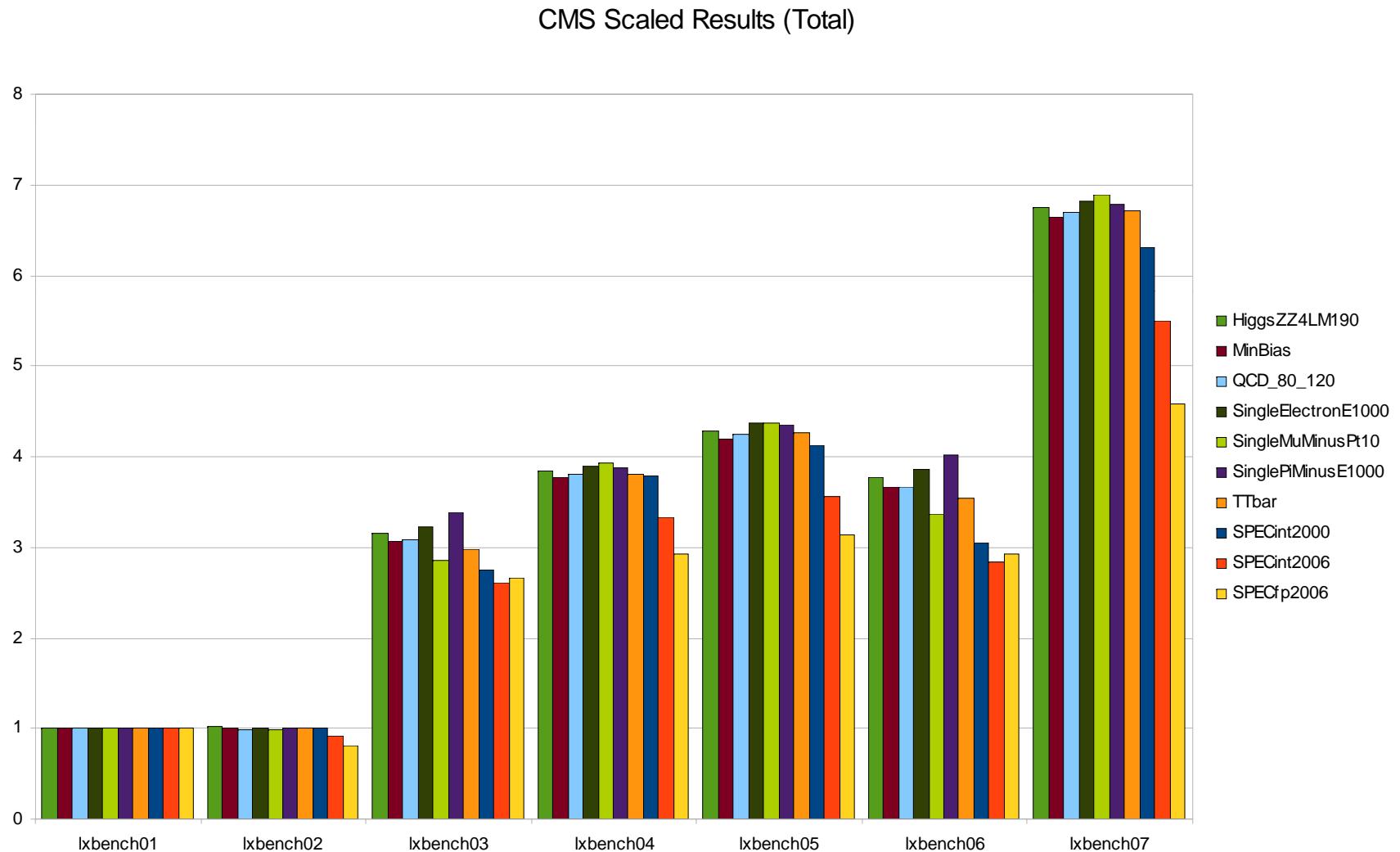
ATLAS vs. SPEC





CMS benchmarks (even more preliminary)

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Coming next

- More results from experiments
 - Atlas moving to standard benchmark suite, redoing their tests
 - CMS: Analysis ongoing
 - Awaiting results from Alice and LHCb
- Extend measurements to more machines
- Run with perfmon (CPU performance/event counters)
- Interim report at HEPiX in May