



# OMPL2001 Result

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## SGI

SGI Altix XE 270 (Intel Xeon X5570, 2.93 GHz, DDR3-1333)

SPECompLpeak2001 = --

SPECompLbase2001 = 233580

SPEC license #HPG0014 Tested by: SGI Test site: SGI Test date: Apr-2009 Hardware Avail: Mar-2009 Software Avail: Jun-2009

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	457	321857		
313.swim_l	12500	1303	153458		
315.mgrid_l	13500	1123	192279		
317.applu_l	13500	1984	108896		
321.equake_l	13000	901	230856		
325.apsi_l	10500	747	224952		
327.gafort_l	11000	642	274129		
329.fma3d_l	23500	1943	193482		
331.art_l	25000	550	726615		

Hardware		Software	
CPU:	Intel Xeon X5570	OpenMP Threads:	16
CPU MHz:	2934	Parallel:	OpenMP
FPU:	Integrated	Operating System:	SUSE Linux Enterprise Server 10 (x86_64) SP2 Kernel 2.6.16.60-0.30-smp
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip (HT on)	Compiler:	Intel C/C++ Compiler 11.0.083 Intel Fortran Compiler 11.0.083
CPU(s) orderable:	1-2 chips	File System:	xf
Primary Cache:	32 KB I + 32 KB D on chip per core	System State:	Multi-user, run level 3
Secondary Cache:	256 KB I+D on chip per core		
L3 Cache:	8 MB I+D on chip per chip		
Other Cache:	None		
Memory:	24 GB (6*4GB DDR3-1333 CL9 RDIMMs)		
Disk Subsystem:	3 TB RAID 0 6 x 500 GB SATA (Seagate Barracuda 7200 rpm)		
Other Hardware:	None		

## Notes/Tuning Information

Extra Flags:  
331.art\_m: -DINTS\_PER\_CACHELINE=16 -DDBLS\_PER\_CACHELINE=8

Baseline optimization flags:  
COPTIMIZE = -O3 -xSSE4.2 -ipo -openmp -ansi\_alias  
-mcmmodel=medium -i-dynamic (ONESTEP)  
FOPTIMIZE = -O3 -xSSE4.2 -ipo -openmp  
-mcmmodel=medium -i-dynamic (ONESTEP)

Software Environment:  
setenv KMP\_AFFINITY disabled  
setenv KMP\_STACKSIZE 31M  
setenv KMP\_SCHEDULE static,balanced  
setenv KMP\_LIBRARY throughput  
setenv KMP\_BLOCKTIME infinite  
setenv OMP\_DYNAMIC FALSE  
setenv OMP\_NUM\_THREADS 16  
limit stacksize unlimited

BIOS settings:  
AMI BIOS version 8.15  
Adjacent cacheline prefetch enabled  
Hyper-Threading Technology enabled (default)  
Intel Turbo Boost Technology enabled (default)  
Intel Turbo Boost Technology activated in the OS via  
/etc/init.d/acpid start



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## Notes/Tuning Information (Continued)

```
/etc/init.d/powersaved start  
powersave -f
```

For a description of SGI's compiler flags, portability flags, and system parameters used to generate this result, please refer to the SGI-20090327-Linux-Intel11.0-intel64.html file in the flags directory.