



## 28th TOP500 List

SC06 Conference, Tampa, FL, November 14, 2006

- 1. Welcome and Introduction (H.W. Meuer)
- 2. TOP10 and Awards (J.J. Dongarra)
- 3. Highlights of the 28<sup>th</sup> TOP500 (E. Strohmaier)
- 4. HPC Power Consumption (J. Shalf, D.H. Bailey)
- 5. HPC Challenge Benchmarks and the TOP500 (Dongarra)
- 6. Discussion



*The IBM eServer Blue Gene Solution System at  
the IBM Thomas J. Watson Research Center, Yorktown Heights, NY, USA*

is ranked

*No. 3*

among the World's TOP500 Supercomputers  
**with 91.29 TFlop/s Linpack Performance**  
on the TOP500 List published at the SC06 Conference, November 14, 2006

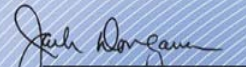
Congratulations from the TOP500 Editors



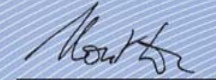
Hans Meuer  
University of Mannheim



Erich Strohmaier  
NERSC/Berkeley Lab



Jack Dongarra  
University of Tennessee



Horst Simon  
NERSC/Berkeley Lab



*NSA/Sandia National Laboratories' Red Storm, the Basis for  
Cray's XT3 & XT4 Architecture, at Sandia National Laboratories, USA*

is ranked

*No. 2*

among the World's TOP500 Supercomputers

**with 101.4 TFlop/s Linpack Performance**

on the TOP500 List published at the SC06 Conference, November 14, 2006

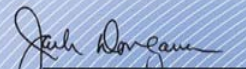
Congratulations from the TOP500 Editors



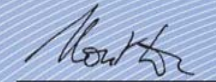
Hans Meuer  
University of Mannheim



Erich Strohmaier  
NERSC/Berkeley Lab



Jack Dongarra  
University of Tennessee



Horst Simon  
NERSC/Berkeley Lab




*The IBM eServer Blue Gene Solution System at  
the U.S. Department of Energy/NSA/LLNL, Livermore, CA, USA*

is ranked  
*No. 1*

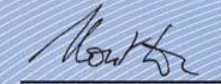
among the World's TOP500 Supercomputers  
**with 280.6 TFlop/s Linpack Performance**  
on the TOP500 List published at the SC06 Conference, November 14, 2006

Congratulations from the TOP500 Editors

  
Hans Meuer  
University of Mannheim

  
Erich Strohmaier  
NERSC/Berkeley Lab

  
Jack Dongarra  
University of Tennessee

  
Horst Simon  
NERSC/Berkeley Lab



*MareNostrum, an IBM eServer BladeCenter JS21 System at  
the Barcelona Supercomputing Center, Spain*

is ranked

*No. 1 in Europe*

among the World's TOP500 Supercomputers

**with 62.63 TFlop/s Linpack Performance**

on the TOP500 List published at the SC06 Conference, November 14, 2006

Congratulations from the TOP500 Editors



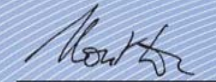
Hans Meuer  
University of Mannheim



Erich Strohmaier  
NERSC/Berkeley Lab



Jack Dongarra  
University of Tennessee



Horst Simon  
NERSC/Berkeley Lab



*NEC/Sun/ClearSpeed/Voltaire TSUBAME, a Sun  $\chi$ 4600 node cluster, at the GSIC Center, Tokyo Institute of Technology, Japan*

is ranked

*No. 1 in Asia*

among the World's TOP500 Supercomputers

**with 47.38 TFlop/s Linpack Performance**

on the TOP500 List published at the SC06 Conference, November 14, 2006

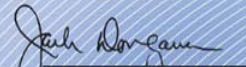
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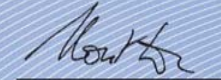
Hans Meuer  
University of Mannheim



Erich Strohmaier  
NERSC/Berkeley Lab



Jack Dongarra  
University of Tennessee



Horst Simon  
NERSC/Berkeley Lab

# 28th List: The TOP10

	Manufacturer	Computer	Rmax [TF/s]	Installation Site	Country	Year	#Proc
1	IBM	BlueGene/L eServer Blue Gene	280.6	DOE/NNSA/LLNL	USA	2005	131,072
2	Sandia/Cray	Red Storm Cray XT3	101.4	NNSA/Sandia	USA	2006	26,544
3	IBM	BGW eServer Blue Gene	91.29	IBM Thomas Watson	USA	2005	40,960
4	IBM	ASC Purple eServer pSeries p575	75.76	DOE/NNSA/LLNL	USA	2005	12,208
5	IBM	MareNostrum JS21 Cluster, Myrinet	62.63	Barcelona Supercomputing Center	Spain	2006	12,240
6	Dell	Thunderbird PowerEdge 1850, IB	53.00	NNSA/Sandia	USA	2005	9,024
7	Bull	Tera-10 NovaScale 5160, Quadrics	52.84	CEA	France	2006	9,968
8	SGI	Columbia Altix, Infiniband	51.87	NASA Ames	USA	2004	10,160
9	NEC/Sun	Tsubame Fire x4600, ClearSpeed, IB	47.38	GSIC / Tokyo Institute of Technology	Japan	2006	11,088
10	Cray	Jaguar Cray XT3	43.48	ORNL	USA	2006	10,424