Raspberry Pi: Changing the face of Supercomputing

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Supercomputer?

Tianhe-2

- 3,120,000 Cores
- Linpack Rmax 33 PFlop/s
- 1,024,000 GB RAM
- 7700 square feet
Raspberry Pi

- .7 mhz clock speed
  - can overclock to 1 mhz
- Raspian Linux
  - Raspberry Specific Debian
Raspberry Pi Cluster

- 32 Node Cluster
- 10 G Flop/s
- ~$1600
Can Anyone do it?

- This kid did (with some help)
- I did too!
My Raspberry Pi Cluster

- Two Nodes (Master/slave, and slave)
- Overclocked to .9 mhz
- Hadoop
What it could mean

- Early exposure to HPC
- Anyone can have their own cluster
- Could lead to an advancement of all computational disciplines