

# Pleiades: Introduction

## Category: Pleiades

Pleiades is the primary supercomputer at NAS. Originally installed in 2008 with 51,200 cores, it has been further expanded at various stages. The following articles provide hardware information at varying levels of detail:

- [Pleiades Hardware Overview](#) - a high-level overview of the Pleiades system architecture, including resource summaries of the compute and front-end nodes, the interconnect, and the storage capacity.
- [Pleiades Configuration Details](#) - focuses on the hardware hierarchy (from the processors to the whole cluster) and provides more detailed configuration statistics on the processors and their associated memory.
- [Harpertown Processors](#), [Nehalem-EP Processors](#), [Westmere Processors](#), and [Sandy Bridge Processors](#) (four articles) - provide configuration diagrams and additional information such as core labeling, instruction set, hyperthreading, and Turbo Boost, for each of Pleiades' four processor types.
- [Pleiades Home Filesystem](#) - information on quota and backup policies on the home filesystem.
- [Pleiades Lustre Filesystems](#) - details the configurations of the Lustre filesystems and users' quotas on these filesystems.
- [Pleiades Interconnect](#) - information on the topology, latency, and bandwidth of the Pleiades InfiniBand fabric.
- [Pleiades Front-End Usage Guidelines](#) - guidelines on using the front-end nodes and bridge nodes.

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<http://www.nas.nasa.gov/hecc/support/kb/entry/169/?ajax=1>