Kennesaw State University HPC Facilities and Resources

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The Kennesaw State University HPC computing resources represent the University's commitment to research computing. The KSU HPC is a RedHat Linux based cluster that offers a total capacity of over 50 Teraflops to KSU faculty researchers and their teams. The cluster consists of around 50 nodes with 120 processors having 1768 cores (excluding GPU cores) and 12.8TB RAM and has both CPU and GPU capabilities. There are queues available for standard, high memory and GPU jobs. The HPC is built on a fast network for data and interconnect traffic. A large storage array is provided for user home directories and a fast storage is available for use by each node during job runtime. Power for Cooling and Servers is backed by battery systems and natural gas generators. On and off campus access to the cluster is allowed only through secure protocols and utilizes Duo Authentication.

Software is provided through environment modules to help provide versions of the same software and avoid conflicts with dependencies. There are around 200 software programs available that include titles for Astronomy, Biology, Chemistry, Math, Statistics, Physics, Engineering and programming languages. Some popular titles include: Gaussian, MATLAB, Mathematica, R, TensorFlow, COMSOL, LS-DYNA, HH-Suite, MAFFT, LAMMPS, OpenFoam, PHYLIP and Trinity. There is cluster management and job scheduling software used to provide free access to this shared resource.

Kennesaw State University recommends that users of the university-level HPC include the following acknowledgement statement: "This work was supported in part by research computing resources and technical expertise via a partnership between Kennesaw State University's Office of the Vice President for Research and the Office of the CIO and Vice

President for Information Technology [1].” and cite using the appropriate citation format.