

During this workshop we are introducing a brand new opportunity through Amazon, utilizing their web services suite (<http://aws.amazon.com/>) for cloud computing. In particular, we will use their EC2 (<http://aws.amazon.com/ec2/>) product for running the NAMD simulations and VMD analysis involved in our new GPU tutorial. This tutorial will introduce the basics of GPU computing and how you can harness the power of GPUs in NAMD and VMD. To ensure each workshop participant has access to NVIDIA GPUs, Amazon is providing each of you with a \$150 credit in order to run EC2 images with two NVIDIA Tesla “Fermi” M2050 GPUs. There will be a short introduction to Amazon Web Services and using EC2 during the workshop, but we ask that you please complete a few tasks prior to the beginning of the workshop in order to make this as easy as possible:

1. **Please at the very least visit** <http://aws.amazon.com/> and sign up for AWS (click on one of the “Sign Up or Sign Up Now” buttons. You can use an existing Amazon account, but still need to activate AWS usage). This registration requires entering a form of payment, but you will be receiving a \$150 coupon code (in another email soon) which can be applied to your account. All charges will first come out of this credit until it is depleted. The tutorial was made with this in mind and all computations will fit within this allotted amount so you should incur no personal cost, though you will certainly be able to continue using AWS at your own expense beyond the \$150 credit provided by Amazon. **Note:** Using AWS is *optional* and is only being offered to ensure everyone’s access to an NVIDIA GPU. If you do not have an appropriate form of payment or do not wish to sign up for an account, you are not required to do so but you may be limited or unable to work through the GPU tutorial.

2. Read through the getting started guide for EC2:

<http://docs.amazonwebservices.com/AWSEC2/latest/GettingStartedGuide/Welcome.html>

This webpage will give you a brief overview of EC2 basics such as launching EC2 images (note: we will be providing you with a special Linux image with NAMD, VMD and the GPU tutorial files already installed).

3. Be sure to read the “Connect to Your Linux/UNIX Instance” section in the getting started guide. Because the EC2 images are remote, you will need to know how to connect using SSH from your client OS (details for Linux/Unix, Windows or browser-based connections included).

If you have any questions about using EC2 for the workshop, please email [ryanmcgreevy@ks.uiuc.edu](mailto:ryanmcgreevy@ks.uiuc.edu)