

# Software Simplifies the Sharing of Numerical Models



***Goddard Space Flight Center***

***Parabon Computation Inc.  
Reston, Virginia***

## **NASA Technology**

- ◆ The Space Agency develops many climate models that simulate how the Earth's atmosphere is affected by factors such as greenhouse gases and aerosols
- ◆ Models are shared with graduate students and other researchers by sharing programming codes, which can be finicky when deployed on other computers



## **Technology Transfer**

- ◆ Parabon Computation developed software that allows a researcher to run models through any standard web browser
- ◆ The company commercialized the NASA-funded technology through its Frontier Collaborative Online Development Environment (Frontier CODE), which includes technologies such as cloud-computing and online collaboration tools

## **Benefits**

- ◆ In Frontier CODE, a central server carries out all computations, thereby eliminating problems caused by running code on various computer hardware systems
- ◆ When a computer runs on an incompatible operating system, CODE can still use a virtual machine to do the data processing