



Meet the Scientist!



A research engineer studies the wood quality of raw forest materials, such as trees, stems and logs.

Dr. Xiping Wang Research Engineer

Ph.D., Michigan Technological University
USDA Forest Service scientist



<http://www.naturalinquirer.org>

<http://www.scienceinvestigator.org>

Important Scientist Characteristics

Careful observation and critical thinking play the most important roles in my research success.

Example of a simple research question I have tried

to answer: How can trees and logs be effectively graded and sorted according to their suitability for different products? My work focuses on developing new non-destructive evaluation methods. These new methods help scientists and forest managers better understand how species, site, silviculture, and genetics affect natural properties of wood.

Technology or equipment used in research:

Acoustic velocity is the speed of sound through a material. We proved that acoustic velocity can measure stiffness and strength of wood in trees. This breakthrough has resulted in one domestic patent and three foreign patents. A commercial tool (Hitman ST300) has been developed using acoustic velocity for tree quality assessment.

Most Exciting Discovery

Discovering that the way sound waves travel in a standing tree is directly linked to the natural wood and fiber properties of the tree.

When did you know you wanted to be a scientist?

I knew I wanted to be a scientist during my Ph.D. work at Michigan Tech. I was experimenting with different ways of measuring acoustic velocity in trees. I was intrigued that a simple hit on a tree trunk can reveal so much about the wood – a phenomenon I still investigate.