

**Physics News Update**  
**The American Institute of Physics Bulletin of Physics News**[Number 465](#) (Story #3), January 7, 1999 by Phillip F. Schewe and Ben Stein

COSMIC RAYS OBSERVED BY GRAVITY-WAVE DETECTOR at the Frascati Laboratory in Italy consists of a 2300-kg aluminum cylinder cooled to a temperature of 0.1 K. The plan is that a passing gravitational wave (broadcast, say, by the collision of two neutron stars) would excite a noticeable vibration in the cylinder. NAUTILUS has not yet recorded any gravitational waves, but scientists have now witnessed the cylinder vibrated by energetic particle showers initiated when cosmic rays strike the atmosphere. The signal generated by the rays is believable because conventional cosmic-ray detectors surrounding the bar also lit up when they were struck by the particles. In effect the detector is able to discern a mechanical vibration as small as  $10^{-18}$  meters, corresponding to an energy deposit as small as  $10^{-6}$  eV. ([Astone et al.](#), *Physical Review Letters*, 3 January 2000; [Select Article](#). Contact Giuseppina Modestino, [modestino@inf.infn.it](mailto:modestino@inf.infn.it), 011-39-694-032-756.)



Physics News Update  
Email: [physnews@aip.org](mailto:physnews@aip.org)  
Phone: 301-209-3090



Click on Logo to Return to AIP Home Page  
© 2000 American Institute of Physics  
One Physics Ellipse, College Park, MD 20740-3843  
Email: [aipinfo@aip.org](mailto:aipinfo@aip.org) Phone: 301-209-3100; Fax: 301-209-0843