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## **The sensitivity of the surface detector of the Pierre Auger Observatory to UHE neutrinos**

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### **Abstract content**

The Pierre Auger Observatory is sensitive to ultra-high energy neutrinos in the EeV range and above. In this work we discuss in detail the complete chain allowing its acceptance to them to be computed. The probability that an ultra-high energy neutrino produces an Extended Air Shower is first computed. Then the simulations to get the detector response to those showers are presented. Finally the neutrino search by looking for highly inclined showers with a significant electromagnetic component at ground is described.

### **If this papers is presented for a collaboration, please specify the collaboration**

The Pierre Auger Collaboration

### **Summary**

### **Reference**

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 4 (HE part 1), pages 389-392

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