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## **Measurement of the neutrino velocity with the OPERA detector in the CNGS beam**

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### **Abstract**

The OPERA neutrino experiment located in the underground Gran Sasso Laboratory measured the velocity of neutrinos composing the CERN CNGS beam over a baseline of about 730 km. Dedicated upgrades of the CNGS timing system and of the OPERA detector, as well as a high precision geodesy campaign for the measurement of the neutrino baseline, allowed to set a limit on the muon neutrino velocity with respect to the speed of light of  $-1.8 \times 10^{-6} < (v_\nu - c) / c < 2.3 \times 10^{-6}$  at 90% C.L.