

## Questions and answers - Justin Vandenbroucke Lecture

The following questions were submitted through Google Form. Some / all may have been answered in the Q&A session already. Nevertheless, we request our lecturers to provide written answers here for the benefit of those who could not attend that session. Thank you!

Slide 38. Does the full sky map of muons have any coincidence with CMB map? Excluding bright sources, is there any structure in background?

Answer: Interesting questions! There is no known association between the map of neutrino-induced muons and the CMB. We expect that the neutrinos are produced by sources much closer than the CMB, and that the CMB does not affect the neutrinos. In terms of looking for spatial structure in the data, we have evidence of individual extragalactic sources (NGC 1068 and TXS 0506+056) and of the Galactic plane as a whole. For additional structure, we have done (1) angular power spectrum analyses which show no evidence of structure, and (2) stacking searches of large catalogs of individual point sources, some of which have modest excess compared to background expectation but don't have substantial evidence of structure.