Dr. Walter Winter

DESY Zeuthen

"Interpretation of results on high-energetic cosmic neutrinos"

The discovery of high-energetic cosmic neutrinos is one of the recent major breakthroughs in science. I discuss the concept of the neutrino production, interpret recent results taking into account the information from other messengers (gamma-rays, cosmic rays), and illustrate future search strategies. For example, one question is if these neutrinos come from the most powerful accelerators in the universe, i.e., the ones which can accelerate cosmic rays to the highest observed energies. Another question is what we can learn about specific astrophysical object classes, such as gamma-ray bursts, for which the best sensitivity can be obtained.