Jaroslav Trnka

Jaroslav Trnka is from Prague, Czech Republic. He is a graduate of Charles University's Faculty of Mathematics and Physics. During the second year of his undergraduate studies, he conducted particle physics research that involved problems in Resonance Chiral Theory, an effective field theory for strong interactions in intermediate energy. For his bachelor's thesis, Jaroslav studied various approaches on how to consistently describe spin one particles within this theoretical framework and the equivalence of these formalisms. The results of Jaroslav's work were subsequently published and presented at conferences in collaboration with several colleagues.

During his master's studies, Jaroslav continued researching problems related to renormalization in Resonance Chiral Theory, calculations of green functions and their phenomenological applications. With colleagues from his bachelor's thesis, Jaroslav wrote a series of papers on the results of his master's thesis. These papers were then shared with theoretical groups in Valencia, Spain and Zurich, Switzerland.

As a previous representative of the Czech Republic in the International Physics Olympiad, Jaroslav has assisted in organizing the Physics Olympiad, a national competition for Czech high school students. A member of the Olympiad's Central Committee and vice president of the Prague committee, he prepared texts and problems for the competition, organized summer school programs for top participants, and gave lectures. Jaroslav was also elected three times to the Mathematics and Physics Faculty Academic Senate, the highest elective faculty body. In this capacity, he focused primarily on modernizing the legislative faculty.

In 2008, Jaroslav began his Ph.D. studies at Princeton University as a recipient of the International Fulbright Science and Technology Award. He intends to specialize in Theoretical Physics connected to the Large Hadron Collider (LHC), an area which he began to explore this past summer.