Krakowska Interdyscyplinarna Szkoła Doktorska

Opis przedmiotu/ *course description*

Przedmiot/ *Course* **:**	Standard Model
Moduł kształcenia/ *Training module***:**	Moduł fakultatywny
Okres realizacji/ *Implementation period* **:**	Dla wszystkich roczników, semestr letni
Język wykładowy/ *Language***:**	Język angielski/english
Prowadzący/ *Lecturer***:**	dr hab. Robert Kaminski
Wymiar godzin przedmiotu/*duration* **:**	12 godzin
Forma prowadzenia zajęć/ *Form of teaching* **:**	Wykłady
Opis przedmiotu/ *course content***:**	A description of the theory of the Standard Model (SM) was presented, starting with the history of its formation from the 1970s. It was shown how quantum mechanics, quantum chromodynamics and the electroweak theory are combined in one SM theory. We presented all the particles on which SM is based, the relationships between them and some of the rules governing them. Experimental confirmations of theoretical predictions in SM and mathematical methods of describing symmetry between particles and their systems have been shown. The aim of the lectures included the acquisition by the participants of the ability to easily determine the spin-spiral structure of resonances, their parity, possible decays, building nonets and doublets, recognizing exotic systems. Important was also to familiarize participants with the characteristic experimental and mathematical language commonly used in SM, which each physicist will meet in his scientific activities.
Efekty uczenia się wg 8PRK zgodnie z Programem kształcenia KISD/ *learning outcomes at level 8 of the PRK according to the KISD Training Program***:**	EU1, EU2, EU3, EU8, EU9, EU13, EU15
Forma weryfikacji efektów uczenia się/ *Method of verification of learning outcomes***:**	The lectures will end with a task test, i.e. solving problems or answering questions

Wymagania wobec uczestników/ *Requirements for participants***:**	