

# BND School, Berlin | 10–21 Sept 2018

	MO, 10 Sep	TUE, 11 Sep	WED, 12 Sep	THU, 13 Sep	FRI, 14 Sep	SA, 15 Sep	SU, 16 Sep
9:00-10:30		QFT	QFT	QFT	Tutorial: QFT & QCD	Astroparticle Physics with photons	Free time  visit Berlin guided tour - tba
Coffee Break		Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	
11:00-12:30	Registration	QCD	QCD	QCD	Event Generation	Calorimetry	
Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	
14:00-15:30	QFT	Tutorial: QFT & QCD	Tutorial: QFT & QCD	Tutorial: QFT & QCD	Event Generation	Calorimetry	
Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	
16:00-17:30	QCD	Experiments with ultra-high cosmic rays and neutrinos	Experiments with ultra-high cosmic rays and neutrinos	Experimental tests of QCD	Experimental tests of QCD	Student project (Calorimeter simulation)	
18:00	Reception Come together	Dinner	Dinner	Dinner	Dinner	Dinner	
20:00-22:00		IceCube Installation, Berlin Goops and gimmicks and neutrinos Christian Spiering					optional Dinner

	MO, 17 Sep	TUE, 18 Sep	WED, 19 Sep	THU, 20 Sep	FRI, 21 Sep
9:00-10:30	Astroparticle Physics with photons	The physics of Axions	BSM physics	BSM physics	Maschine learning
Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Check out - latest 11:00 Coffee Break
11:00-12:30	Calorimetry	The physics of Axions	BSM physics	Maschine learning	Maschine learning
Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
14:00-15:30	Calorimetry	BSM physics	Excursion 14:30, HZB, BESSY CTA Prototyp DESY BBQ at DESY lakeside	Maschine learning	Departure
Coffee Break	Coffee Break	Coffee Break		Coffee Break	
16:00-17:30	Student project (Calorimeter simulation)	Student project (Calorimeter simulation)		Student project (Calorimeter simulation)	
18:00	Dinner	Dinner		Dinner	
20:00-22:00	Evening Lecture Biology with Accelerators Dominik Oberthuer				

## Scientific Programm

Quantum Field Theory, Jan Govaerts (Louvain)  
 QFT Tutorial  
 Quantum Chromo Dynamics, Wouter Waalewijn (NIKHEF)  
 QCD Tutorials  
 Experimental tests of QCD, Matthias Schott (Mainz)  
 Event generation, Frank Siegert (Dresden)  
 Experiments with ultra-high cosmic rays and neutrinos, Ioana Maris (ULB)  
 Calorimetry, Erica Garutti (U. Hamburg)  
 Astroparticle Physics with photons, Gernot Maier (DESY)  
 The physics of Axions, Babette Dobrich (CERN)  
 BSM physics, Michael Kraemer (Aachen)  
 Machine learning, Sascha Caron (Nijmegen)  
 Student project (Calorimeter simulation), Thorsten Kuhl (DESY)