

*Annual Workshop of the Kepler-Kolleg:  
Particles, Fields and Messengers of the Universe  
(September 27 – 29, 2017, Freudenstadt-Lauterbad)*

## WORKSHOP PROGRAM

(OT)= Overview and Introductory talks, (ST) Short contributions; 45 min and 25 min (including 5 min discussion)

### Wednesday, September 27<sup>th</sup>

	Arrival	
12:30 – 13:30	Lunch / Coffee/Room Check in	
13:30 – 13:45	Josef Jochum	Welcome – Rules of the game
Chair: Josef Jochum		
13:45 – 14:30	<b>Juraj Streicher</b>	OT: Counting with Loops - An Introduction to Perturbative QFT
14:30 – 14:55	<b>Gabriele Coniglio</b>	ST: Simplified Models for Dark Matter production at the LHC
14:55 – 15:40	<b>Junya Nakamura</b>	ST: Probing the scalar sector in $e^+e^- \rightarrow ZHH$ .
15:40 – 15:50	<i>questions, discussions – students only</i>	
15:50 – 16:35	Coffee Break	
Chair: Thomas Gutsche		
16:35 – 17:20	<b>Tom Kaufmann</b>	OT: Perturbative QCD in a Nutshell
17:20 – 17:45	<b>Illka Hellenius</b>	ST: Photoproduction with Pythia 8
17:45 – 18:10	<b>Kai Xu</b>	ST: Test of tetraquark structure of $a_1(1420)$ state predicted by COMPASS Collaboration (CERN) in strong two-body decays
18:10 – 18:35	<b>Marina Walt</b>	ST: Nuclear Parton Distribution Functions
18:35 – 18:45	<i>questions, discussions – students only</i>	
18:45	Dinner	

## Thursday, September 28<sup>th</sup>

7:30 – 8:30	Breakfast	
Chair: Andrea Santangelo		
8:30 – 9:15	<b>Matthias Bieger</b>	OT: The coming CTA observatory and IAAT contributions
9:15 – 9:40	<b>Vadim Vybornov</b>	ST: Time variations of the cyclotron line energy in the accreting pulsar V-0332+53
9:40 – 10:05	<b>Lisa Loebing</b>	ST: Search for Technetium in Atmospheres of post asymptotic giant branch Stars
10:05 – 10:15	<i>questions, discussions – students only</i>	
10:15 – 11:00	Coffee Break	
Chair: Thomas Gutsche		
11:00 – 11:25	<b>Lauro Conti</b>	ST: How to build an UV-MCP detector
11:25 – 11:50	<b>Daniel Thun</b>	ST: Planet formation in circumbinary discs
11:50 – 12:15	<b>Vincent Schipperges</b>	ST: Effective Field Theory Analysis of Ceres Data
12:15 – 12:25	<i>questions, discussions – students only</i>	
12:30 – ...	Lunch / Coffee	
... – 17:00	<b>Hiking Exkursion</b>	Berghütte Lauterbad (2,5 hours, 9 km)
Chair: Josef Jochum		
17:00 – 17:45	<b>Stefan Scholl</b>	OT: The Electron Capture On $^{163}\text{Ho}$
17:45 – 18:10	<b>Andreas Zschocke</b>	ST: Neutrinoloser doppelter Betazerfall
18:10 – 18:20	<i>questions, discussions – students only</i>	
18:20	Dinner	
<b>19:30 – 20:30</b>	<b>Kostas Kokkotas</b>	The Whispering Universe

## Friday, September 29<sup>th</sup>

7:30 – 8:30	Breakfast	
Chair: Tobias Lachenmaier		
8:30 – 9:15	<b>Martin Schmidt</b>	OT: Recent Jet developments
9:15 – 9:40	<b>Alexander Tietzsch</b>	ST: Neutrino Oscillations with the JUNO Experiment
9:40 – 10:05	<b>Sebastian Rottenanger</b>	ST: SOX: Measurement of the electron antineutrino flux from an artificial source
10:05 – 10:15	<i>questions, discussions – students only</i>	
10:15 – 11:00	Coffee Break	
Chair: Tobias Lachenmaier		
11:00 – 11:25	<b>Tobias Jammer</b>	ST: The EUSO-SPB mission
11:25 – 11:50	<b>Sebastian Völkel</b>	ST: From Compact Objects to Quasi-Normal Modes and Back
11:50 – 12:00	<i>questions, discussions – students only</i>	
12:00 – 12:30	Votes / Prizes	
12:30 – ...	Lunch / Coffee	
	If needed further discussions trip back to Tübingen	

**END**