Gravitational Wave and Multimessenger Astronomy

765. WE-Heraeus-Seminar

25 - 28 April 2022

hybrid

at the Physikzentrum Bad Honnef, Germany

WILHELM UND ELSE
HERAEUS-STIFTUNG

Program

Sunday, 24 April 2022

17:00 – 20:00	Registration	
18:00	*BUFFET SUPPER and informal get-together*	

Monday, 25 April 2022

08:00	*BREAKFAST*	
08:45 – 09:00	Scientific organizers	**Welcome words**
09:00 – 09:45	Stefan Hild	**The Einstein telescope**
09:45 – 10:30	Tim Dietrich	**Interpreting the nuclear physics - multi-messenger astrophysics picture drawn by neutron star mergers**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Harald Lück	**Surpassing the standard quantum limit of interferometry**
11:45 – 12:30	Moritz Mehmet	**Squeezed states of light and their application in gravitational wave detectors**
12:30 – 12:40	**Conference Photo** (in the front of the lecture hall)	
12:40	*LUNCH*	

Program

Monday, 25 April 2022

14:30 – 15:00	**Sparkler talks poster session I**	
15:00 – 16:00	**Poster session I**	
16:00 – 16:30	*COFFEE BREAK*	
16:30 – 17:15	Nial Tanvir	**Strategies and prospects for electromagnetic observations of gravitational wave sources**
17:15 – 18:00	Jennifer Barnes	**Electromagnetic counterparts to compact object mergers**
18:30	*DINNER*	
20:30	Bernard Schutz	**Does GW astronomy have a long term future?**

Program

Tuesday, 26 April 2022

08:00	*BREAKFAST*	
09:00 – 09:45	Anna Franckowiak	**Multi-messenger astronomy with high-energy neutrinos**
09:45 – 10:30	Christian Stegmann	**Multi-messenger astronomy with gamma-rays**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Alex Nitz	**Detection of gravitational waves from compact-binary mergers**
11:45 – 12:30	Vivien Raymond	**Perspectives for astrophysical inference with gravitational waves**
12:30	*LUNCH*	
14:30 – 15:00	**Sparkler talks poster session II**	
15:00 – 16:00	**Poster session II** and *COFFEE*	
16:00 – 16:45	Mansi Kasliwal	**Multi-messenger astrophysics**
16:45 – 17:30	Maya Fishbach	**Black hole astrophysics with gravitational-wave populations**
17:30 – 17:45	Stefan Jorda	**About the WE-Heraeus-Foundation**
18:30	*DINNER*	

Program

Wednesday, 27 April 2022

08:00	*BREAKFAST*	
09:00 – 09:45	Alex Nitz	**Basics of gravitational-wave data analysis with PyCBC**
09:45 – 10:30	Vivien Raymond	**tba**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Guido Müller	**LISA**
11:45 – 12:30	Bangalore Sathyaprakash	**Listening to the universe with the next generation of ground-based gravitational-wave detectors**
12:30	*LUNCH*	
14:00 – 18:00	**Excursion**	
18:30	*HERAEUS DINNER* *(social event with cold & warm buffet with complimentary drinks)*	

Program

Thursday, 28 April 2022

08:00	*BREAKFAST*	
09:00 – 09:45	Andreas Freise	**Einstein telescope instrument design and commissioning: a short tutorial on simulation tools**
09:45 – 10:30	Jakob Nordin	**AMPEL: Connecting theoretical models with multi-messenger data streams**
10:30 – 11:00	*COFFEE BREAK*	
11:00 – 11:45	Stefanie Kroker	**Nanophotonics for future gravitational wave detectors**
11:45 – 12:30	Scientific organizers	**Conclusion**
12:30	*LUNCH*	

End of the seminar and departure

NO DINNER for participants leaving on Friday morning