



## Summary of research, publications, student supervision, teaching and funding

Research interests: gauge/gravity duality, black holes, quantum gravity, dark matter  
>100 publications in peer reviewed international journals  
>30 invited talks at international conferences  
Supervision of >10 PhD, >20 master and >30 bachelor students  
Over 3 million € from individual competitive research grants  
Founding member of Graduate School "["Particles and Interactions"](#)" (started 2014)

## Selected research grants as principal investigator (past five years)

2021-2025 *Generalized SYK/JT correspondence*  
FWF project P 33789, 360,000 €  
2020-2023 *Quantum energy conditions in two dimensions*  
FWF project P 32581-N27, 280,000 €  
2018-2021 *Soft Heisenberg hair on horizons*  
FWF project P30822 -N27, 380,000 €  
2016-2019 *Entanglement entropy and (non-AdS) holography*  
FWF project P28751-N27, 330,000 €

## Selected organization of workshops and conferences

2022 Conference "Strings 2022"  
2019 Erwin Schrödinger Institute programme "["Higher spins and holography"](#)"  
2016 Simons Center workshop "["Flat holography"](#)"  
2015 Workshop at Austrian Academy "["100 years of curved spacetime"](#)"  
until 2015 ["Vienna Central European Seminar on Particle Physics and QFT"](#)

## Selected functions and memberships (past five years)

2013-2019 Participant of COST actions [MP1210](#) and [MP1405](#)  
2014-2016 Elected co-director of Young Academy in Austrian Academy of Sciences  
since 2014 Outstanding Referee of American Physical Society (PRD and PRL)  
2013-2021 Elected member of Young Academy in Austrian Academy of Sciences

## Selected outreach activities

2019-2023 Scientific advisor for creation of three silver coins by the Austrian mint, "Milky Way" (2021), "Black Holes" (2022), "Neutron Stars" (2023)  
2021 Invited talk at first Pint of Science event in Vienna  
2015 Exhibition & public lectures on gravitational waves and general relativity  
2010 Invited talk at first TEDxVienna event  
since 2006 Popular lectures "Black Holes" at various venues in Leipzig, Boston, Vienna (Kinderuni, University meets public, Colleges, Schools, ...)