Dissertations and Thesis 2017

Dissertations

Ait Benkhali, F. (2017): Beobachtungen Aktiver Galaktischer Kerne mit den H.E.S.S. Cherenkov-Teleskopen und dem Fermi-LAT im hochenergetischen γ-Bereich und Optimierung des Antriebssystems des HESS II Teleskops. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Aquines Gutiérrez, O. (2017): Inclusive V^0 Production at the LHC. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Brünner, S. (2017): Mitigation of ^{222}Rn induced background in theXENON1T dark matter experiment. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Edwards, T. C. (2017): Separation of gamma-Ray, Electron and Proton induced Air Showers applied to Diffuse Emission Studies with H.E.S.S. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Hasterok, C. (2017): Gas Purity Analytics, Calibration Studies, and Background Predictions towards the First Results of XENON1T. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Laux, M. (2017): Photoionization in strong laser fields : from atoms to complex molecules. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Mi, Y. (2017): Strong-field ionization of atoms and molecules with two-color laser pulses. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Rauch, F. L. (2017): From Final Dark Matter Results and Background Shape Uncertainties in XENON100 to First Light in XENON1T. PhD Thesis. Ruprecht-Kalrs-Universität, Heidelberg.

Schmöger, L. (2017): Kalte hochgeladene Ionen für Frequenzmetrologie. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Sun, X. (2017): Nonthermal Processes of Fast Outflows from Astrophysical Objects. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Wagner, V. (2017): Pulse Shape Analysis for the GERDA Experiment to Set a New Limit on the Half-life of 0νßß Decay of ^{76}Ge. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Wang, K. (2017): The High-energy Emission of GRBs and the Propagations of Ultrahigh Energy Cosmic Rays. PhD Thesis. Nanjing University, Nanjing.

Wegmann, A. (2017): Characterization of the liquid argon vetoof the Gerda experiment and its application for the measurement of the ^{76}Ge half-life. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Welter, J. M. R. (2017): Phenomenology of neutrino magnetic moments. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg

Master and Bachelor Thesis

Ackermann, A. (2017): Modellierung und Charakterisierung eines Kompressors für ultrakurze Laserpulse durch Strahlenverfolgung. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Bogen, S. (2017): Laserspektroskopie des $1s^2\,2s^2\,2p^2\,P_{3/2} \rightarrow {}^2P_{1/2}$ M1-Übergangs in sympathetisch gekühlten Ar^{13+}-Ionen. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Borisova, G. D. (2017): Theoretical and Experimental Studies of XUV Multielectron (Auto-)Ionization Dynamics in Helium and Molecular Hydrogen. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Botsi, S. (2017): Isotopic shift measured with a spin-orbit wave packet. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Dickopf, S. (2017): Berechnungen zu den Magnetfeldkorrekturspulen am THe-Trap-Experiment. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Dietrich, K. (2017): Entwicklung einer Multiplexer Box für Radiofrequenzsignale und Simulation von Radiofrequenzanregungen in der PENTATRAP-Falle. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Djendjur, D. (2017): Projekt TrapRemi - Aufbau und erste Charakterisierung der Zajfman-Falle. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Endres, L. (2017): Polarisation Assisted Amplitude Gating. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Erlewein, S. (2017): Trapping of gold anions in a linear Paul trap. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Gan, H. (2017): Nuclear reactions in astrophysical plasmas. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Gernandt, P. S. (2017): The Neutrionless Double Beta Decay at the LHC : Analyzing the Lambda-Diagram. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Heinen, L. (2017): Setup and Characterization of a Single-Focused Beam Optical Trap for Lithium. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Hensel, C. (2017): Zeeman-resolved spectroscopy of the coronal optical lines of Fe ions. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Hoibl, L. (2017): Design und Simulation der Ionenstrahlführung im Projekt TrapRemi. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Ivanovic, A. (2017): Experimental observation of ultrashort laser pulse effects on the autoionization dynamics of argon atoms. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Jäger, J. (2017): Untersuchung von metastabilen Zuständen hochgeladener Ruthenium-Ionen mittels EUV-Spektroskopie. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Jiménez Tejero, D. (2017): Pseudoscalar Inflation, Baryogenesis and Gravitational Waves. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Jörg, F. (2017): Investigation of coating-based radon barriers and studies towards their applicability in liquid xenon detectors. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Karthein, J. (2017): Precision mass measurements using the Phase-Imaging Ion-Cyclotron-Resonance-

detection technique. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Kilinc, J. (2017): Charakterisierung der nichtlinearen Pulspropagation in einer gasgefüllten Hohlfaser. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Klett, S. E. (2017): Evolution of the Energy Calibration Coefficients in the Stereo Experiment. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Kraemer, S. (2017): Towards Laser Cooling of Beryllium Ionsat the Alphatrap Experiment. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Kühn, S. (2017): Inbetriebnahme und Charakterisierung einer Elektronenkanone mit optischem Zugang zur Strahlachse in einer kompakten Elektronenstrahlionenfalle. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Lauble, F. (2017): Practical Criterion for Single-Photon Entanglement at X-Ray Energies. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Lindenblatt, H. C. (2017): Resonant Multi-Photon Ionization Experiments on Neon Monomers and Dimers Augmented by Pulse Intensity and Wavelength Diagnostics. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Marie, P. (2017): Optical spectroscopy of highly charged ruthenium ions with astrophysical interest. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Ramien, G. N. (2017): Generation and Control of X-ray Frequency Combs Through Periodic Photon Manipulation. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Rauch, J. (2017): Montage und Charakterisierung eines hochauflösenden optischen Spektrometers zur Vermessung verbotener optischer Übergänge in hochgeladenen Ionen an der Heidelberger Elektronenstrahl-Ionenfalle. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Rimmler, M. M. (2017): Operating a low-energy Electron Cooler at the Cryogenic Storage Ring CSR. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Rink, T. (2017). Leptonic CP violation in the minimal type-I seesaw model : Bottom-up phenomenology & top-down model building. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Rosner, M. (2017): The CANREB Electron Beam Ion Source : Laser Ion Source and Beam Line Assembly. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Sailer, T. (2017): A Laser Ion Source for the Alphatrap Experiment. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Schierhuber, T. (2017): Ultra-Low Background Germanium Spectroscopy : Commissioning an experimental shielding for a future neutrino experiment. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Schweiger, C. (2017): Construction and commissioning of a room-temperature electron beam ion trap and development of a wire probe injection system. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Sdeo, K. (2017, March 3). Visualization and Simulation of Laser-Induced Fullerene Fragmentation. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Shobeiry, F. (2017): Time-Resolved Study of Double-Ionization of Atoms. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Stegmann, J. (2017): Gravitationswellen von Kernkollaps-Supernovae. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Walter, H. (2017): Analyse von NMR-Daten aus dem Magneten von THe-Trap. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Dissertations and Thesis 2018

Dissertations

Angioi, A. (2018): Multi-Particle Effects in Strong-Field Quantum Electrodynamics. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Bhadoria, S. (2018): Laboratory Astrophysics and Ion Acceleration Using Intense Lasers . PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Bilous, P. (2018): Towards a nuclear clock with the ^{229}Th isomeric transition. PhD Thesis. Ruprecht-Karls Universität, Heidelberg.

Campos Vidal, M. D. (2018): Phenomenology and Models of Dark Matter and Neutrinos. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Cerchiari, G. (2018): Laser spectroscopy of La- and anion trapping with a view to laser cooling. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Daněk, J. (2018): Coulomb effects in the dipole and nondipole regimes of strong-field ionization. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Ding, T. (2018): Quantum dynamics in weak and strong fields measured by XUV nonlinear spectroscopy. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Donath, A. (2018): The Galactic Gamma-ray Source Population between 10 GeV and 50 TeV. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Helmboldt, A. (2018): New insights into modified scalar sectors and exotic Higgs decays. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Hossen, K. (2018): Kinematically complete experiments for electron induced break-up of small molecules and clusters. PhD Thesis. Universidade de Santiago de Compostela, Santiago de Compostela, Spain.

King, J. (2018): Hochenergetische Gammastrahlung aus dem Galaktischen Zentrum. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Lyu, C. (2018): Narrow-band hard-X-ray lasing. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Meyer, C. (2018): The lowest rotational quantum states of hydroxyl anions probed by electron photo detachment in a cryogenic storage ring. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Pürckhauer, S. S. (2018): Characterising light concentrators for CTA and optimising the data selection to improve angular resolution and sensitivity. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Rischka, A. (2018): The First Direct QEC Measurement in ^{163}Ho and the Development of the High-Precision Mass Spectrometer PENTATRAP for Neutrino Physics. PhD Thesis. Ruprecht-Karls-Universität, Universität.

Schmid, G. (2018): Two-Color Pump-Probe Experiments on Small Quantum Systems at the Free-Electron Laser in Hamburg. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Sikora, B. (2018): Quantum field theory of the g-factor of bound systems. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Stooß, V. (2018): Strong-Field Spectroscopy : From Absorption to Time-Resolved Dynamics in Strong Fields. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Tang, S. (2018): Plasma High Harmonic Generation and Single Attosecond Pulse Emission fromUltraintense Laser Pulses. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Master and Bachelor Thesis

Borras, H. W. H. (2018). Determination of the angular distribution of cosmic ray muons and development of a low-cost silicon detector. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Breidenbach, S. (2018). Hadronic vacuum polarization in atoms. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Da Costa Castanheira, C. (2018). Towards multidimensional spectroscopy experiments in the XUV. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Elsing, D. (2018). Plasma screening effects in laser-generated plasmas. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Gleixner, F. (2018). Parametric instabilties of short and ultra-intense laser pulses in a plasma. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Herrero Gómez, P. (2018). Investigation of surface cleaning procedures for the removal of radon daughters from PTFE surfaces and their applicability in liquid xenon detectors. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Hörl, J. (2018). Simulation of ion-neutral merged beams experiments at the Cryogenic Storage Ring. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Kaap, F. (2018). Plasma-induzierte Blauverschiebung während der Erzeugung Hoher Harmonischer. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Magunia, A. (2018). Doubly-Excited Helium Strongly Driven with Short and Long Wavelength Pulses. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Müller, M. (2018). Entwicklung von Kryoelektronik für den Nachweis einzelner Ionen im PENTATRAP-Penningfallen-Massenspektrometer. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Nüsslein, F. (2018). An experimental setup for testing ion beam sources for the CSR facility. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Schmidt, V. C. (2018). Design of an ion beam extraction optics and analysis of the molecular composition of an ion beam in an electrostatic storage ring. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Scholer, O. (2018). Neutrinomassenbestimmung anhand von Kurzzeitcharakteristika galaktischer Supernovae. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Spaniol, S. (2018). Electron Transport System for Fast-Timing-Readout at a Micro-Calorimeter Particle Detector. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Spieß, L. J. (2018). Setup of a vibration-suppressed cryogenic system for a RF ion trap with minimum micromotion. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Steinsberger, T. (2018). Microwave injection for the ALPHATRAP experiment and developments of the multi-reflection time-of-flight technique of the ISOLTRAP experiment. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Weegen, M. (2018). Multiphoton Ionisation of Lithium from an optical Dipole Trap. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Winkler, D. (2018). Characterization of a HPGe Coaxial Well Detector for Low Energy Gamma Spectroscopy & Sensitivity Analysis of Germanium Spectrometers. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Winter, R. (2018). Low-energy extreme-ultraviolet spectroscopy of Ru IV to Ru VIII using an electron beam ion trap. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Habilitations, Dissertations and Thesis 2019

Habilitation

Oreshkina, N. S. (2019): Quantum electrodynamic and nuclear effects in the spectra of highly charged ions. Habilitation Thesis. Ruprecht-Karls-Universität, Heidelberg.

Dissertations

Arapoglou, I. (2019): First measurement of the ground-state g-factor of boronlike argon $^{40}Ar^{13+}$ in Alphatrap. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Bragin, S. (2019): Front-form approach to quantum electrodynamics in an intense plane-wave field with an application to the vacuum polarization. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Castrignano, S. (2019): A Quantum Theoretical Approach to Hard X-ray Time-Domain Interferometry. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Dobrodey, S. (2019): Charge-exchange studies of bare and hydrogen-like low-Z ions in the X-ray and extreme-ultraviolet ranges inside an electron beam ion trap. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Filianin, P. (2019): Measurements of low decay energies of beta-processes using Penning traps. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Jardin-Blicq, A. (2019): The TeV γ-ray emission of the Galactic Plane : HAWC and H.E.S.S. observations of the Galactic Plane and detailed study of the region surrounding 2HWC J1928+177. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Joshi, V. (2019): Reconstruction and Analysis of Highest Energy γ-Rays and its Application to Pulsar Wind

Nebulae. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Katsoulakos, G. (2019): Nonthermal Processes Near Supermassive Black Holes. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Liu, Y. (2019): Two-Color Pump-Probe Experiments on O_2 and N_2 at the Free-Electron Laser in Hamburg. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Michel, N. (2019): Relativistic theory of nuclear structure effects in heavy atomic systems. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Nickerson, B. S. (2019): Towards coherent control of the ^{229}Th isomeric transition inVUV-transparent crystals. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Platscher, M. E. L. (2019): Phenomenology of massive spin-2 fields. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Roca Catalá, C. (2019): Optimization of the simulation framework in the Stereo Experiment to characterize the detector response and optical properties of the liquid scintillators. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Saurabh, S. (2019): Collision studies with internally cold ion beams and merged electron beams in a cryogenic storage ring. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Schuh, M. (2019): Simulations of the image charge effect in high-precision Penning traps and the new IGISOL ion buncher. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Schüssler, R. X. (2019): First High-Precision Mass Measurements at PENTATRAP on highly charged Xe and Re ions. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Segal, T. (2019): Mass Measurements of Neon Isotopes at THe-Trap. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Weigel, A. (2019): Detection Electronics Design and First Observation of Bound-Electron Spin Transitionsat the ALPHATRAP g-Factor Experiment. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Wilhelm, P. (2019): First Studies of Low-Energy Electron Cooling of keV Energy Ion Beams at the Electrostatic Cryogenic Storage Ring CSR. PhD Thesis. Ruprecht-Karls-Universität, Heidelberg.

Master and Bachelor Thesis

Ackermann, A. (2019): Development and characterization of a femtosecond-pulse compressor. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Altmann, D. (2019): Inbetriebnahme eines gepulsten Gasinjektionssystems fürLadungsaustauschmessungen von O^{8+} und O^{7+} mitH_2 in einer Elektronenstrahl-Ionenfalle. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Amberg, S. (2019): Setup and characterization of a hollow core fiber waveguide for transient absorption experiments with short wavelength infrared pulses. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Bogen, S. (2019): Frequenz-, Leistungs- und Positionsstabilisierung von UV-Lasersystemen für Frequenzmetrologie mit hochgeladenen Ionen. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Engelfried, L. (2019): Ion acceleration in laser-plasma interaction. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Gerharz, M. L. (2019): Dynamical polarization control in X-ray quantum optics. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Herkommer, B. (2019). Measuring the energy spectra of unknown samples using coherent control of the complex phase of X-rays. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Hersch, M. (2019): A 5d Linear Dilaton Braneworld : Dark Matter from the Gravitationally Sterilised Standard Model. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Hübner, M. (2019): Temperature stabilization of the ultra-stable voltage source StaReP for the Alphatrap experiment. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Jaramillo Gracia, C. F. (2019): WIMPs and sterile neutrinos as dark matter. Master's Thesis. Karlsruher Institut für Technologie, Karlsruhe.

Klein, C. (2019): Minimal radiative neutrino mass : a systematic study. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Knauer, P. (2019): Stabilisation of Thermal Drifts in a Femtosecond Enhancement Cavity. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

König, C. M. (2019): In-trap Laser Desorption in an EBIT for the Production of Highly Charged Ions of Rare Isotopes at Pentatrap. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Kromer, K. (2019): Environmentally-induced systematic effects at the high-precision mass spectrometer PENTATRAP. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Krummeich, J. (2019). Development of a cooling system for mirrors in an UHV chamber. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Kuntz, J. (2019). Gauge Theories of Conformal Gravitation. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Lange, D. (2019): Untersuchung des Dip-Fit-Algorithmus zur Bestimmung der Axialfrequenz beim Hochpräzisions-Massenspektrometer PENTATRAP. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Lecher, M. (2019): Exploring the applicability of electro deposited copper for reducing the radon background in liquid xenon detectors. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Leidel, V. (2019). Laser scattering calculations in pair producing plasmas. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Lukezic, N. (2019): Low-Noise Charge Amplifier for the LEGEND-200 Cooperation. Bachelor's Thesis. Hochschule Karlsruhe Technik und Wirtschaft, Karlsruhe.

Meinhold, T. A. (2019): Stabilised laser-driven radiation pressure acceleration of ions. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Podszus, T. (2019): On the High-Energy Behaviour of Stong-Field QED in an Intense Plane Wave. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Rockenstein, S. (2019). Active Carrier-Envelope Phase Stabilisation of Ultrashort Laser Pulses. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Rosner, M. K. (2019). Production and preparation of highly charged ions for re-trapping in ultra-cold environments. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Schneider, A. (2019): Design of the Analysis Trap and He Ion Source for the $^{3}He^{2+}$ magnetic moment measurement. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Togawa, M. (2019): Resonante Anregung der *1s* - *nl*-Übergänge in He- und Li-artigen Sauerstoffionen mittels weicher Röntgenstrahlung bei PETRA III : Experiment und Theorie. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Warnecke, C. (2019): Imaging of Coulomb crystals in a cryogenic Paul trap experiment. Master's Thesis. Ruprecht-Karls-Universität, Heidelberg.

Zebergs, I. (2019): Charakterisierung der Ionenspeicherung im Projekt TrapRemi. Bachelor's Thesis. Ruprecht-Karls-Universität, Heidelberg.