

Verein der Freunde und Förderer des Deutschen Elektronen-Synchrotrons DESY

Bericht des Vorstands für das Jahr 2020

Mitglieder des Vorstands im Berichtsjahr:

- Wilfried Buchmüller (Vorsitzender)
- Friedrich-Wilhelm Büßer
- Helmut Dosch (DESY Direktorium)
- Manfred Fleischer (Rechnungsführer)
- Axel Lindner (Schriftführer)

VFFD Jahreshauptversammlung, 25. Januar 2021

Unterstützungen und Aktivitäten 2020

- Russisch-Unterricht am DESY
- Reisekosten für zwei Studenten aus Kuba
- Unterstützung der Zeuthen-Band
(Anschaffungen)
- Chor am DESY (Covid-19)
- Keine Konzerte bei DESY (Covid-19)
- VFFD Promotionspreis

Russisch-Unterricht am DESY

Bericht 2020

Im Jahr 2020 haben 17 Schüler die Russisch Sprachkurse bei DESY besucht.

Das vergangene Jahr war ein herausforderndes Jahr für die Schüler, Eltern und Russischlehrerin bei DESY. Die Pandemie hat Anpassungen an der Unterrichtsplanung gefordert. Einige der Kurse wurden in Form des Fern- und Online-Unterrichts durchgeführt. Trotz der Schwierigkeiten wurde die Arbeit erfolgreich fortgesetzt. Die für uns wichtigsten Themen waren „Gesundheit“, „Vor- und Nachteile von Fernunterricht und Online-Bildung“.

Die Kinder diskutierten diese Themen mit Interesse und äußerten ihre Meinungen zu diesen Themen.

Im September 2020 nahmen Studenten unseres Kurses an Test-Lernspielen für russische Sprache teil, die von Kindern eines Programmierer Clubs aus der russischen Stadt Protvino entwickelt wurden ...

Um die Qualität des Russischunterrichts als zweite Muttersprache für zweisprachige Kinder zu verbessern, nahm die Lehrerin Natalia Ekimova in 2020 an einer Reihe von Webinaren teil, die von der Universität St. Petersburg abgehalten wurden ...

Sommerstudenten 2019



**Hoffnung: Konzert
der Zeuthen-Band
im Sommer 2021**

Promotionspreis 2020

**12 Nominierungen, eingehend begutachtet von einer
Kommission mit Mitgliedern aus allen
Forschungsbereichen von DESY**

Erfolgreiche Kandidaten:

- **Dr. Valeria Botta** (DESY Hamburg)
- **Dr. Gregor Loisch** (DESY Zeuthen)

Valeria Botta was born in Assisi, Italy, in 1990 and she studied for her bachelor in Perugia and then for her master in Pisa. In 2015 she joined DESY CMS, in the group of Elisabetta Gallo and Alexei Raspereza, working on Higgs physics with the fresh data from Run2 at the LHC, which was just starting.

Valeria immediately started to analyze these new proton proton collisions data, taken at the highest energy of 13 TeV. The goal was to measure the Higgs into tau lepton decays with higher precision than in Run 1, but before that the data had to be understood. Valeria restructured the code and calculated the electron and muon efficiencies for the whole group. She performed the whole analysis chain for two decay channels, working very closely with the other international groups. She gave the so-called pre-approval presentation in front of the Collaboration, which is a big recognition in CMS...

Valeria was also deeply involved in calibration work for the Collaboration. In 2017 a new pixel detector, to which also DESY contributed,...

Valeria had a small son during her PhD but, in spite of this, she managed to finish her thesis in the 3 years, without any additional delay.



Gregor Loisch was born in the year 1988 in Offenbach near Frankfurt. He started his studies in Physics at the Goethe University Frankfurt in 2008. During his study time, he already had stays abroad at ETH Zürich in Switzerland and at the Pohang Accelerator Laboratory in South Korea. His master thesis in applied plasma physics was done at the GSI, the Helmholtz Centre for Heavy Ion Research. Gregor completed his studies in 2015 with a Master of Science in Physics. In the following year, he moved to DESY in Zeuthen for his doctorate at the University of Hamburg, and he joined the accelerator research group at the photo injector test stand Zeuthen, PITZ.

Gregor's work at DESY took place in the field of beam-driven acceleration of electrons in plasma waves, the so-called plasma wakefield acceleration. In this scheme, an oscillation of the plasma electrons is triggered by the space charge forces of a driver-electron bunch in a plasma acceleration medium. In the differently charged areas of the resulting plasma wave, subsequent particle bunches can be accelerated with field strengths, which exceed those in conventional metal-cavity accelerator modules by ...



Scientific Colloquium (Science Day) Program

10:00 – 10:05	Welcome and Introduction Wilfried Buchmüller
10:05 – 10:30	Laser pulses shorter than one light-field oscillation + Discussion Roland Mainz
10:30 – 10:55	Molecules in motion - ultrafast dynamics of liquid water + Discussion Caroline Arnold
10:55 – 11:20	Watching ultrafast films grow at atomic scale + Discussion Martin Roelsgaard
11:20 – 11:45	Beam-driven plasma wakefield acceleration + Discussion Gregor Loisch
11:45 – 12:10	Getting to know the Higgs particle + Discussion Valeria Botta
12:10 – 12:15	Closing Remarks and End of the Event Wilfried Buchmüller

DANK an Herrn Kiseljakovic und Frau Straub!

**DANK an Prof. Büßer
für 16 Jahre VFFD Vorstand!!**

Promotionspreis des Vereins der Freunde und Förderer des DESY 2021

Award of the Association of the Friends and Sponsors of DESY 2021

The Association of the Friends and Sponsors of DESY announces an award for an outstanding Ph.D. thesis based on the research program of DESY.

Applications for this award are invited on behalf of candidates whose thesis meets the following criteria:

- the thesis must have been defended in the period from April 1 of 2020 until March 31 of 2021
- the thesis must describe research in accelerator physics, in particle and astroparticle physics or in photon science
- the cooperation with DESY must be of essential relevance for the research topic of the thesis

The award may be shared by up to three people. If the prize will be given to one person the award will be 3000 EUR. If it will be given to more persons each awardee will receive 2000 EUR.

The awardees will be chosen on the recommendation of a review committee.

For further information please visit our home page: <http://vffd.desy.de>

Applications for the award should be directed to:

Prof. W. Buchmüller
Chairman of the Association
DESY, Theory Group
Notkestr. 85, Bldg. 2a
22603 Hamburg
wilfried.buchmueller@desy.de

before April 30, 2021. The letter of nomination should include a detailed justification (letter of recommendation) and be accompanied by a curriculum vitae, a pdf-file (send to wilfried.buchmueller@desy.de) and two copies of the thesis and a list of publications.

The award will be publicly presented on the DESY Science Day in the autumn of 2021.

Nächste Jahreshauptversammlung: 31. Januar 2022