PhD student position at HEPHY - Belle II group

The Institute of High Energy Physics (HEPHY) of the Austrian Academy of Sciences is looking for a PhD student to join the Belle II group research activities.
HEPHY has a long tradition of participation in both the Belle and the Belle II experiments and plays a leading role in the operation of the Belle II Vertex Detector as well as in physics studies including but not limited to semileptonic B decays and dark sector physics.
The position will be funded as part of the newly established ERC StG group InterLeptons under the grant agreement 947006 with European Research Council of the EU commission.
The candidate will work in the context of dark sector physics with data collected at the Belle II experiment and specifically will take a leading role in the search for invisible decays of a light Z' boson in the reaction $e^+e^- \to \mu^+\mu^- Z'$. The group has already played a leading role in the analysis of the commissioning data that led to the first Belle II physics publication.
The candidate will lead all the main aspects of the measurement with particular attention to properly suppress backgrounds and identify the signal, via the implementation of ad hoc machine and deep learning algorithms such as deep neural networks.

We offer a PhD student position with competitive brutto salary of ~2,162.30 EURO payed 14 times per year, a dynamic and young research environment in the world's most livable city (https://en.wikipedia.org/wiki/Global_Liveability_Ranking), the possibility of scientific and personal growth via dedicated support and training.
The ideal candidate will have documented knowledge of particle physics and experience in the analysis of data of high energy physics experiments, documented knowledge of machine learning, and the willingness to contribute to the operation of the Belle II experiment (remotely or in person when applicable).
Any of the following point will be considered as an asset:
- experience at the Belle or Belle II experiment,
- experience in studies of triggers,
- experience in dark sector physics.

Applications containing all the required material will be considered until the position is filled

Required documents to be sent to the email given below:
1 page motivation letter, two letters of recommendation to be sent to same email address, a recent CV, a proposed starting day as early as or after January 1st 2021.
Additional information on the activities of the group can be found here: https://www.oeaw.ac.at/en/hephy/research/belle-experiment-at-kek/

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