Commissioning of a full scale superconducting undulator with 20 mm period length at the storage ring KARA

<u>Sara Casalbuoni</u>^{*1}, Edmund Blomley¹, Nicole Glamann¹, Andreas Grau¹, Tomas Holubek¹, Erhard Huttel¹, David Saez de Jauregui¹, Sondes Bauer², Cristian Boffo³, Thomas Gerhard³, Melanie Turenne³, and Wolfgang Walter³

> ¹Karlsruhe Institute of Technology (KIT) IBPT, Karlsruhe, Germany ²Karlsruhe Institute of Technology (KIT) IPS, Karlsruhe, Germany ³Bilfinger Noell GmbH, Germany *sara.casalbuoni@kit.edu

The Karlsruhe Institute of Technology and Bilfinger Noell jointly develop superconducting undulators for light sources. After the R&D phase the collaboration has completed the first worldwide superconducting undulator product. The full scale superconducting undulator with 20 mm period length (SCU20) was installed in the storage ring KARA in December 2017. Since January 2018 SCU20 is in operation serving as radiation source for the NANO beamline. We present here the commissioning of SCU20 with electron beam, as well as the first results of the spectral characterization.