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Abstract for an Invited Paper for the APR20 Meeting of the American Physical Society

## The Roadmap of Nuclear Physics in Europe. MAREK LEWITOWICZ, GANIL and NuPECC

The physics of the nucleus and its numerous applications in astrophysics, interdisciplinary research, medicine and industry is one of the dynamically developing domains of science. In particular, physics with Radioactive Ion Beams (RIB) and very high intensity stable-ion beams (SIB) is entering into a new area thanks to next generation RIB and SIB facilities, already in operation or under construction in Asia, North America and Europe. The presentation will focus on future plans of European nuclear physics. A content and importance of the recent Nuclear Physics European Collaboration Committee (NuPECC) Long Range Plan [1] and of integrating activities of the European nuclear physics communities like ENSAR2 and STRONG 2020 will be emphasized. The European flagship facility FAIR [2] and other major European nuclear physics infrastructures in the context of the roadmap established by the European Strategy Forum on Research Infrastructures (ESFRI) [3] will be presented. Interplay between nuclear, particle and astroparticle physics will be emphasized in the context of the 2018-2020 update of European Strategy for Particle Physics [4]. [1] http://www.nupecc.org/lrp2016/Documents/lrp2017.pdf [2] https://www.gsi.de/en/researchaccelerators/fair.htm [3] https://www.esfri.eu/roadmap-2018 [4] https://europeanstrategyupdate.web.cern.ch