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## Nuclear reaction studies using CARME @ CRYRING

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Measurement of nuclear reactions involving radioactive isotopes is critical to model and understand the wealth of new astronomical data from stellar explosions. At FAIR@GSI (Germany), the newly commissioned low-energy CRYRING storage ring offers novel possibilities for nuclear physics and nuclear astrophysics reaction studies.

I will describe initial commissioning, present status and approved science plans for CARME (CRYRING Array for Reaction MEasurements), a novel detection array for nuclear and atomic reaction measurements soon to be installed on the CRYRING. CARME features moving double-sided silicon strip detectors, compatible with the extreme high vacuum conditions of the CRYRING, affording high efficiency and angular resolution for charged-particle detection. CARME @ CRYRING offers the possibility to study nuclear reactions in a range of astrophysical scenarios, ranging from the Big Bang to supernovae, using both stable and radioactive beams.

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