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Highlights from the H.E.S.S GRB observation program

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The emission at very-high energies (VHE, >100 GeV) from gamma-ray burst (GRBs) - the most luminous explosions in the universe - remained elusive for long time. After almost a decade of efforts by current Imaging Atmospheric Cherenkov Telescopes (IACTs), within the last two years the detection of three GRBs at VHEs has been confirmed, one with the MAGIC telescopes and two with H.E.S.S. In this contribution we present the H.E.S.S. GRBs observation programme and some of its highlight results including the VHE detection of the extremely bright GRB 180720B, remarkably achieved over 10 hours after the end of the prompt emission, when the X-ray flux had already decayed by four orders of magnitude. We will show this VHE detection in context with the multi-wavelength data, discuss the possible emission mechanisms at work and underline their implications on the GRB detection estimates for future VHE observatories.

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