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## Observing Gamma-Ray Bursts with the H.E.S.S. experiment

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**Abstract content** **&nbsp;** (Max 300 words) **<br>** **<a href="http://events.saip.org.za/getFile.py/?target="\_blank">Formatting &** **<br>** **Special chars</a>**

Gamma-ray bursts (GRBs) are some of the most powerful and exotic events in the universe. Due to their high luminosity, they are visible to high redshifts (up to  $z \sim 8$  but typically  $z \sim 1-2$ ), thus providing excellent probes of the distant universe. Although their emissions are detected across the electromagnetic spectrum, from radio to gamma rays, their behavior at the highest energies ( $> 100$  GeV) is unknown. The detection of these very high energy (VHE) photons is of importance, as it would help understand their emission mechanism and could provide evidence of UHECR acceleration in GRB jets. Hence, it is among the primary science goals of HESS-II, the second phase of the HESS experiment that started with the addition of a fifth telescope to the center of the array. With its  $600\text{m}^2$  mirror area, this new telescope allows us to probe the sub-100 GeV energy range, while maintaining the large collection area of ground based gamma-ray observatories.

**Apply to be** **<br>** **considered for a student** **<br>** **&nbsp;** **award (Yes / No)?**

No

**Level for award** **<br>** **&nbsp;** **(Hons, MSc, <br>** **&nbsp;** **PhD, N/A)?**

N/A

**Main supervisor (name and email)** **<br>** **and his / her institution**

Markus Boettcher, Markus.Bottcher@nwu.ac.za, North-West University

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Yes

**Primary author:** Dr GARRIGOUX, Tania (North-West University)

**Presenter:** Dr GARRIGOUX, Tania (North-West University)

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