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## Importance of mergers in the growth of brightest cluster galaxies

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**Abstract content**   
 (Max 300 words)   
 [http://events.saip.org.za/getFile.py?target=\\_blank](http://events.saip.org.za/getFile.py?target=_blank) **Formatting & Special chars**

Brightest cluster galaxies (BCGs) are the most massive galaxies in the Universe and found at the centre of galaxy clusters. The unique position of BCGs make them ideal probes to study massive galaxy formation. Models of hierarchical galaxy formation indicate that these massive galaxies grow through the repeated mergers of less massive galaxies and the merger histories of BCGs provide a critical test for current galaxy formation models.

The most direct way to determine the importance of mergers in the growth of BCGs is to look for mergers that will take place in the near future. This is done by searching for nearby galaxies that are likely to merge with the BCGs.

I will present early results from an unprecedented sample consisting of tens of thousands of galaxy clusters (over a factor of ~100 larger than previous samples) looking back in cosmic time to a third the age of the Universe ( $z < 0.45$ )

**Apply to be considered for a student award (Yes / No)?**

Yes

**Level for award (Hons, MSc, PhD)?**

PhD

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

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Dr. S.I. Loubser Affiliation: North-West University

**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

No

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**Session Classification:** Astro

**Track Classification:** Track D1 - Astrophysics