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### Properties of the Quark-Gluon Plasma Observed at RHIC and LHC

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

Puzzles and discoveries abound in the results from the Relativistic Heavy Ion Collider (RHIC) and from the relativistic heavy ion collisions at the Large Hadron Collider (LHC) including what seems to be the creation of the world's most perfect fluid and the stunning disappearance of large momentum particles into a dense, opaque quark-gluon plasma (QGP). Surprisingly, the methods of string theory appear to provide a better description of the QGP for observables associated with lower momentum particles while the completely opposite approach with an application of perturbative quantum chromodynamics (pQCD) works best for particles at the highest momenta. We present work attempting to bridge the divide between these two opposing descriptions of the properties of the QGP, the state of the universe a microsecond after the Big Bang.

#### 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

# Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

Yes

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Track Classification: Track G - Theoretical and Computational Physics