

Preliminary programme II

SAGS 2023 Conference

17 – 21 March 2023

ANEW Hotel Hluhluwe, Hluhluwe

Day 0: Friday, 17 March 2023

15:00 – 18:00 Arrival and check in at the ANEW Hotel Hluhluwe

Day 1: Saturday, 18 March 2023

8:45 – 9:15 Registration, welcome and introduction

9:15 – 10:00 *On the Buchdahl stars*

Naresh Dadhich **(45 min)**

10:00 – 10:15 *All dynamical shearfree spherical spacetimes*

Jonathan Hakata **(15 Min)**

10:15 – 10:30 *New exact solutions to the field equations in higher dimensions*

Sfundo Gumede **(15 min)**

10:30 – 11:00 Tea Break

11:00 – 11:30 *The concept of time, its units, and measurement in ancient India*

Aroon Beesham **(30 min)**

11:30 – 12:00 *The damping of gravitational waves by matter*

Nigel Bishop **(30 min)**

12:00 – 12:30 *Structure formation with shear viscosity*

Anslyn John **(30 min)**

12:30 – 14:00 Lunch Break

14:00 – 14:30 *Perspectives on isometric embeddings*

Gareth Amery **(30 min)**

14:30 – 15:00 *A study of traversable wormhole solutions in modified teleparallel gravity*
Abdelghani Errehymy **(30 min)**

15:00 – 15:30 SAGS AGM
(30 min)

15:30 – 16:00 *Tea Break*

16:00 – 17:00 Discussion session
Poster *Spacetime and variability of accreting relativistic objects*
Eva Sramkova

Day 2: Sunday, 19 March 2023

9:00 – 9:45 *Modified theories of gravity - a unified approach to metric and metric-affine models*
Christian Boehmer **(45 min)**

9:45 – 10:15 *Scott topology on spacetime*
Ritu Goswami **(30 min)**

10:15 – 10:30 *Sobriety and the dual Scott spacetime lattice*
Langelihle Mazibuko **(15 min)**

10:30 – 11:00 *Tea Break*

11:00 – 11:30 *Charged gravitational collapse in EGB gravity*
Byron Brassel **(30 min)**

11:30 – 12:00 *Matter density perturbations in anisotropic spacetimes with evolving Lambda and G*
Amare Abebe **(30 min)**

12:00 – 12:30 *Hidden symmetries – not quite explained!*
Kesh Govinder **(30 min)**

12:30 – 18:00 *Lunch Break and trip to Umfolozi- Hluhluwe Park*

Day 3: Monday, 20 March 2023

- 9:00 – 9:30 *Some algebraically special exact solutions in modified gravity*
Sudan Hansraj **(30 min)**
- 9:30 – 10:10 *A brief history of radiating stars*
Megan Govender **(40 min)**
- 10:10 – 10:30 *The shear-free perfect fluid conjecture in general relativity*
Muzikayise Sikhonde **(20 min)**
- 10:30 – 11:00 *Tea Break***
- 11:00 – 11:30 *Extending cosmology with future large-scale surveys*
Warren Naidoo **(30 min)**
- 11:30 – 12:00 *Diffuse emission and magnetic fields in ACT clusters*
Sinenhlanhla Sikhosana **(30 min)**
- 12:00 – 12:30 *A covariant decomposition of the Kerr spacetime*
Chevarra Hansraj **(30 min)**
- 12:30 – 14:00 *Lunch Break***
- 14:00 – 14:15 *Differential equations arising in radiating stars*
Noeleen Naidoo **(15 min)**
- 14:15 – 14:30 *Charged fluids in higher order gravity*
Shavani Naicker **(15 min)**
- 14:30 – 14:45 *Conformal symmetries and collapse*
Ayanda Kunyana **(15 min)**
- 14:45 – 15:00 *FRW transit cosmological model in $f(R, T)$ gravity theory*
Siwaphiwe Jokweni **(15 min)**
- 15:00 – 15:15 *Comparison of Chaplygin gas and bulk viscous cosmological models*
Siyabonga Msweli **(15 min)**

15:15 – 16:00 *Tea Break*

16:00 – 17:00 Concluding remarks

Day 4: Tuesday, 21 March 2023

10:00 Check out and departure from ANEW Hotel Hluhluwe.
