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NEWS RELEASE Tune into the universe with UP's Sci-Enza science centre



The cover of the Tuning into Our Universe bookletr.

PRETORIA – When children look up at the sky and ask about the sun, the moon and the stars, or about the patterns we call constellations in the Milky Way, how do you reply? These questions are addressed in *Tuning into the Universe*, an illustrated booklet for children that will be launched as a <u>free-to-download resource</u> on Astronomy Day on 12 October.

"The booklet is aimed at children in Grades 4 to 6, but all children – older and younger – even adults, can enjoy it," says Puleng Tsie, the manager of <u>Sci-Enza</u>, a centre in the <u>Faculty of Natural and Agricultural Sciences</u> at the <u>University of Pretoria</u> (UP) that communicates science to learners of all ages in an entertaining way.

Tsie and Marion West, the science engagement coordinator for the <u>South African Radio Astronomy Observatory</u> (SARAO), conceptualised and provided the technical information for the booklet.

"The teams at Sci-Enza and SARAO, which funded the development of the booklet, understand that the next generation of people working in astronomy will come from our young learners, and we want to inspire them," Tsie explains.

The booklet showcases South Africa's mega telescopes, <u>SALT</u> and <u>MeerKAT</u>, to tap into the curiosity that people may have about 'what's out there', and introduces learners and the public to the astonishing research and discoveries about the universe that scientists are making with these instruments.

The Southern African Large Telescope (SALT) is the single largest optical telescope in the southern hemisphere, and is so powerful that it is capable of seeing a candle on the moon. It is situated near the village of Sutherland in the Northern Cape, where astronomers use it to understand more about the universe, such as how galaxies develop. SALT recently aided in the discovery of a rare white dwarf binary star system that sheds new light on the colossal explosion that happens in the dying days of a star, known as a supernova.

MeerKAT is a radio telescope that consists of a system of 64 antennas, situated 90km from the small Northern Cape town of Carnarvon. Radio telescopes allow scientists to study everything from newborn stars to the centre of the Milky Way galaxy. This year, MeerKAT produced an image that showed 49 previously unknown galaxies.

"The stars and constellations that we see in the night sky are just a small part of our universe," the booklet explains. "Our universe is the biggest laboratory we can ever explore; it is also the 'laboratory' in which we live our daily lives."

Short descriptions about people who work in astronomy in South Africa and about the fascinating work they do is included in the booklet.

"In this way, learners can see astronomy and all its fields as careers they could pursue in the future, whether as an astronomer, technician, researcher or science communicator," Tsie says.

To produce the booklet, Tsie and West drew from their experience in astronomy research at SARAO and astronomy public engagement. Through Sci-Enza, Tsie regularly leads astronomy workshops for teachers and learners.

"To make sure we reach children everywhere, we came up with the booklet, which they can download or their schools can print," she explains. "We are also printing a number of copies that we will distribute at science centres in the nine provinces to give away. We are aiming to reach millions of children through this initiative."

As part of its astronomy outreach mandate, Sci-Enza also has a mobile planetarium. Learners can go inside this large inflatable dome to experience astronomy shows – all projected onto the dome.

"With funding from the national <u>Department of Science and Innovation</u>, we have taken it to several schools in Tshwane and engaged with thousands of learners in Grades 4 to 6," Tsie explains. "We would love to take it to other parts of South Africa, including rural areas, and are looking for funding to make this possible. "In the meantime, schools can bring learners to the Sci-Enza planetarium at the University, or it can be booked by groups and families or for birthdays."

For more information or to make a booking, visit <u>www.up.ac.za/sci-enza</u>; email them at <u>sci-enza@up.ac.za or call</u> +27 (0)12 420 3767.

Media enquiries can be directed to Mr Sashlin Girraj - Public Relations & Events Manager

Email: sashlin.girraj@up.ac.za | Cell: +27(0)72 447 3784

## ABOUT THE UNIVERSITY OF PRETORIA

The University of Pretoria (UP) is one of the largest contact and residential universities in South Africa, with its administration offices located on its Hatfield Campus in Pretoria. This 115-year-old institution is also one of the largest producers of research in South Africa.

Spread over seven campuses, it has nine faculties and a business school, the Gordon Institute of Business Science (GIBS). It is the only university in the country with a Faculty of Veterinary Science, which is ranked the best in Africa. UP has 120 academic departments and 92 centres and institutes, accommodating more than 56 000 students and offering about 1 100 study programmes. It has the most academic staff with PhDs (70%), NRF-rated researchers (613).

The <u>2024 Times Higher Education subject rankings</u> placed UP first in South Africa in the fields of Law, Veterinary Science, Accounting and Finance; Agriculture and Forestry and Electrical and Electronic Engineering. Quacquarelli Symonds (QS) ranked the University among the top five in Africa, as part of their <u>2024 World</u> <u>University Rankings (WUR)</u>. UP was the only South African university featured in the <u>2023 World</u> <u>University</u> <u>Rankings for Innovation (WURI)</u>, falling within in the 101-200 range of innovative universities.

For more information, please go to www.up.ac.za