

New Scientist

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MATHEMATICIANS BATTLE OVER CONTROVERSIAL PROOF

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SPECIAL ISSUE

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Cosmology

Our black hole's magnetic swirls

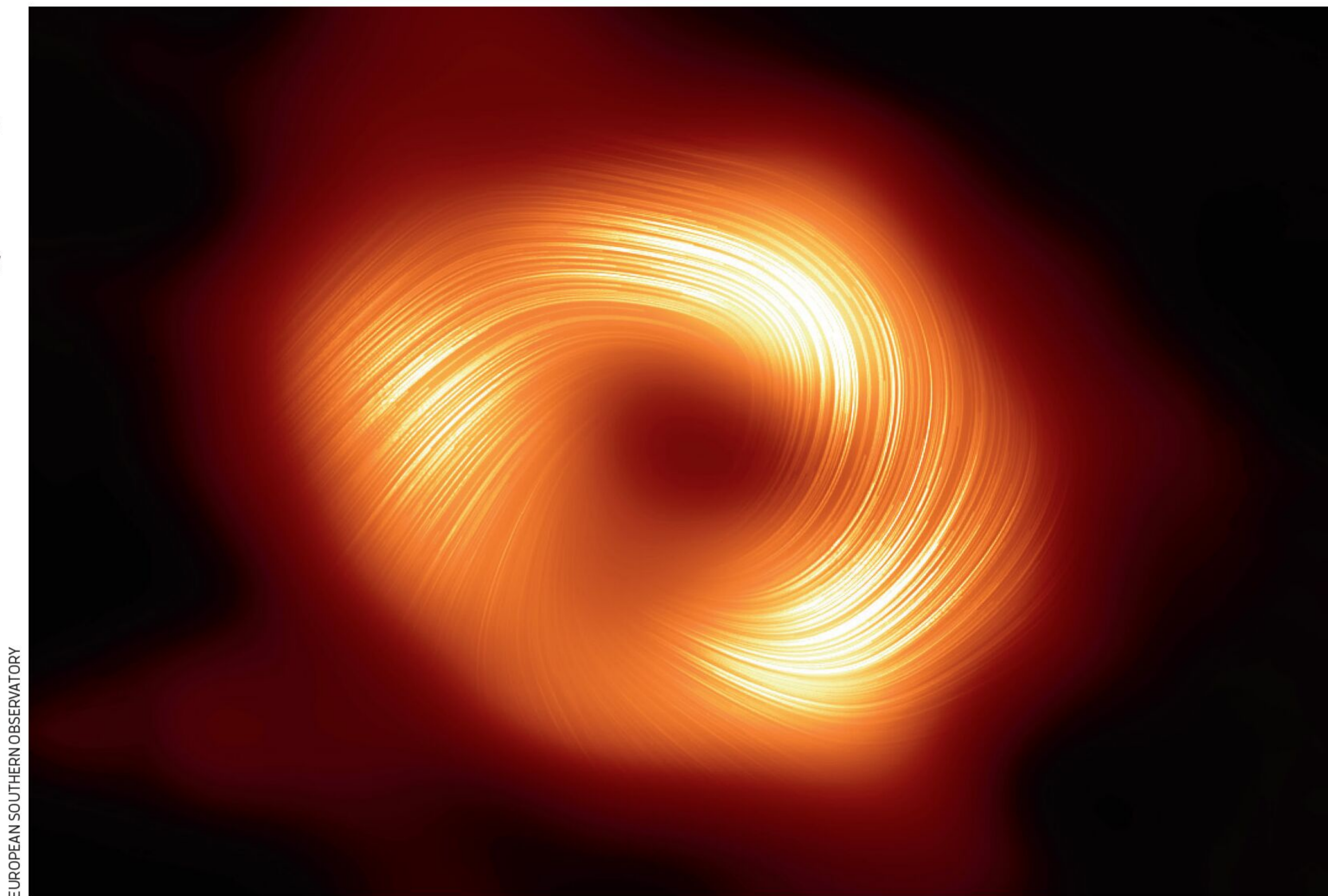
New view of the black hole at the heart of the Milky Way reveals its curling magnetic fields

Alex Wilkins

THIS is the supermassive black hole at the centre of our galaxy as we have never seen it before. The image reveals the swirling magnetic fields around Sagittarius A* (Sgr A*) and hints that it may be producing a jet of high-energy material.

The picture was taken by the Event Horizon Telescope (EHT). In 2022, the EHT produced the first image of Sgr A*, revealing light coming from whirling hot plasma set against the dark background of the black hole's event horizon, where light can't escape its extreme gravity.

Now, EHT researcher Ziri Younsi at University College London and his colleagues have revealed how this light is polarised, creating this stunning picture (*The Astrophysical Journal Letters*, doi.org/mpdg & doi.org/mpdh). The image is very similar to one of another black hole, M87*. Given that M87* fires out high-energy jets, the similarity implies that Sgr A* could too. ■



EUROPEAN SOUTHERN OBSERVATORY

Archaeology

Ancient symbols carved near dinosaur footprints

MYSTERIOUS rock carvings found next to dinosaur tracks in Brazil suggest that ancient people discovered the footprints thousands of years ago and viewed them as meaningful.

The Serrote do Letreiro site in Paraíba state features the footprints of theropod, sauropod and ornithomimid dinosaurs from the Early Cretaceous Epoch, between 145 million and 100 million years ago. Near these are rock carvings, or petroglyphs, predominantly circular with radial lines and other abstract motifs.

Leonardo Troiano at Brazil's National Institute of Historic and Artistic Heritage and his colleagues surveyed the site on

foot and using drones. They discovered new dinosaur footprints and more than 30 petroglyphs surrounding them (*Scientific Reports*, doi.org/mpdf).

Little is known about the makers of these petroglyphs. "They were nomadic or semi-sedentary groups that lived in north-eastern Brazil," says Troiano. "They used stone tools and survived by hunting and gathering available natural resources. Considering the dates obtained from the few dated sites in the region, we speculate that the petroglyphs were made between 3000 and 9000 years ago."

Troiano says there is a special relationship between the

petroglyphs and the footprints, but we can't know how these people interpreted the prints. "Determining the motives behind these depictions is a truly complex

Dinosaur footprints and carvings, highlighted by dashed lines, at the Serrote do Letreiro site, Brazil



LEONARDO TROIANO/PHAN, BRAZIL

thing," he says. However, he says the artists may have thought the prints were giant bird tracks.

Edward Jolie at the University of Arizona points out that Indigenous oral traditions offer a rich window into how people interpreted their world, including extinct creatures. "For example, some scholars have pointed out the impressive Thunderbird of traditional narratives – that are depicted in rock images across North America – may well be representations of *Teratornis*, a genus of massive birds of prey that went extinct by the Late Pleistocene [around 12,000 years ago]," he says. ■

Soumya Sagar