

Virtual telescope ready to image black hole 虚拟望远镜准备拍摄宇宙黑洞

- 請注意：中文文字内容只提供簡體版

科学家们相信他们即将获得黑洞的第一张照片。他们建立了一个地球大小的“虚拟望远镜”，通过连接大量的无线电接收器收集关于银河系中心的巨大黑洞的信息，这些接收器分布在世界各地，以南极为点，远到夏威夷，美洲和欧洲。科学家们盼望这次将在四月进行的观测活动能够实现人类看见黑洞的梦想。请听 Jonathan Amos 报道。

Black holes are supposedly black because their **immense** gravity prevents light escaping from their grasp. All true, but the edge of the a black hole ought to shine very brightly, as it **tears apart** any stars, gas and dust unlucky enough to get too close.

Our Milky Way galaxy central black hole is about four million times the **mass** of the sun. But its **precipitous edge** is not a lot wider, and given the hole is thousands of light years away, you need a really special telescope to see it and now it exists.

The Event Horizon Telescope is a network of widely spaced **radio antennas** whose data when combined **mimics** the resolving power of a single telescope the size of the earth. Its first big test is in April, if Einstein is right, it should see a bright ring of light circling a dark shadow.

This is not a **quick snap**, **colossal** volume of data will be **acquired** in the April's observing run, and it's likely to take super computers many months to **assemble** an image.

词汇表

immense	巨大的
tears apart	分裂，分开
mass	(物理) 质量
precipitous edge	陡峭的边际
radio antennas	无线电天线
mimics	模仿，摹拟
quick snap	快照
colossal	庞大的
acquired	获得，被收集到
assemble	组合，凑成

测验

请听报道并回答下列问题。

1. Why are black holes called black holes?
2. How big is the Milky Way's central black hole?
3. True or false? *The Event Horizon Telescope is made up of one physical telescope.*
4. Which word in the text means 'the act of holding onto something'?

答案

1. Why are black holes called black holes?

Because black holes' immense gravity prevents light escaping from them, so they look black.

2. How big is the Milky Way's central black hole?

It's about four million times the mass of our sun.

3. True or false? *The Event Horizon Telescope is made up of one physical telescope.*

False. The Event Horizon Telescope is made up of a network of radio antennas.

4. Which word in the text means 'the act of holding onto something'?

Grasp.