The size of the focused spot on the screen depends on the diameter of the hole. The size of the spot decreases as the diameter increases. Suppose you make images of the same star with a 5-m telescope and a 1-m telescope. Which telescope will create a sharper (more point like) image? About what minimum size must an optical telescope have to resolve the two stars? 2.0 m. How does the angular resolution of a large optical telescope compared to that of a small optical telescope? Instead, infrared telescopes are put on the top of big mountains, placed in planes that fly at high altitude, or put in orbit. Is it a good idea to build at a low elevation, an observatory designed to detect radio waves? Yes. A millimeter wave telescope is designed to detect radio waves from objects in space whose wavelengths are in the region of one millimeter. These waves can penetrate the clouds of dust between a black hole and Earth. Black holes form in outer space when stars collapse or fall in on themselves and the gravitational pull is so strong that not even light can escape. This makes them invisible to the human eye. Photos: Wonders of the universe. The Africa Millimetre Telescope could reveal new information about black holes. Its 15-meter radio dish is being taken to Namibia from Chile. Hide Caption. NASA's Spitzer Space Telescope captured the Tarantula Nebula in two wavelengths of infrared light. The red represents hot gas, while the blue regions are interstellar dust. Hide Caption. Start by marking “Optical, Infrared, and Millimeter Space Telescopes: 21-25 June 2004, Glasgow, Scotland, United Kingdom” as Want to Read: Want to Read saving… Want to Read. This three-volume set presents papers from a June 2004 conference. Papers are in sections on the Spitzer and Hubble space telescopes, the Astro-F Infrared Sky Survey Mission, the Herschel space observatory, and the James Webb space telescope and its components. Other sections cover solar telescopes, wavefront sensing and control, mirror technology, Get A Copy. Amazon.