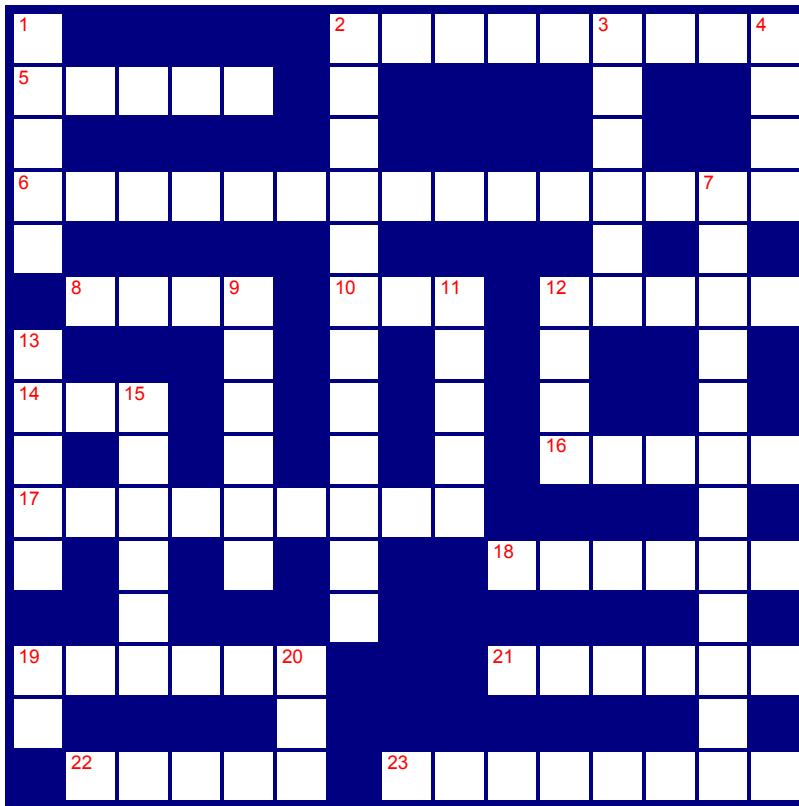


Astrophysics_15x15_2008-10-16

B.B. Huria



Across

2 The point in an orbit when two objects are closest together. The opposite of apoapsis. (9)

5 The length of the path traveled by light in vacuum during a period of 1/299 792 458 second. (5)

6 A spherically symmetric collection of stars which shared a common origin. The cluster may contain up to millions of stars spanning up to 50 parsecs. (8,7)

8 The Advanced X-ray Astrophysics Facility. _____ was renamed Chandra X-ray Observatory, CXO, and launched in July 1999. (4)

10 An atom with one or more electrons stripped off, giving it a net positive charge. (3)

12 A device that produces a coherent beam of optical radiation by stimulating electronic, ionic, or molecular transitions to higher levels so that when they return to lower energy levels they emit energy. (5)

14 All Sky Monitor. An instrument designed to observe large areas of the sky for interesting astronomical phenomena. (3)

16 The Broad Band X-Ray Telescope, which was flown on the Astro-1 space shuttle flight (Dec. 1990). (5)

17 A body that revolves around a larger body. For example, the

moon is a ____ of the earth. (9)

18 The fundamental SI unit of time. (6)

19 The distance to an object which has a parallax of one arc second. It is equal to 3.26 light years, or 3.1^{1018} cm. (6)

21 The process in which atomic nuclei collide so fast that they stick together and emit a large amount of energy. (6)

22 Electromagnetic radiation which has the lowest frequency, the longest wavelength, and is produced by charged particles moving back and forth. (5)

23 Cooler (and thus darker) regions on the sun where the magnetic field loops up out of the solar surface. (8)

Down

- 1 In astronomy, a picture of the sky. (5)
- 2 A special property of light; light has three properties, brightness, color and ____.
- 3 A low-density gas in which the individual atoms are ionized (and therefore charged). (6)
- 4 A large ball of gas that creates and emits its own radiation. (4)
- 5 The change of potential energy experienced by an electron moving from a place where the potential has a value of V to a place where it has a value of (V+1 volt). (8,4)
- 6 A suite of software tools developed at NASA's Goddard Space Flight Center for analyzing high-energy astronomy data. (6)
- 7 The random fluctuations that are always associated with a measurement that is repeated many times over. ____ appears in astronomical images as fluctuations in the image background. (5)
- 8 The outer edge of the apparent disk of a celestial body. (4)
- 9 (Burst and Transient Source Experiment) is an instrument aboard the Compton Gamma Ray Observatory that detects and locates gamma-ray bursts in the sky. (5)
- 10 A word used for any kind of stuff which contains mass. (6)
- 11 The random fluctuations that are always associated with a measurement that is repeated many times over. ____ appears in astronomical images as fluctuations in the image background. (5)
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- 13 (Burst and Transient Source Experiment) is an instrument aboard the Compton Gamma Ray Observatory that detects and locates gamma-ray bursts in the sky. (5)
- 14 A word used for any kind of stuff which contains mass. (6)
- 15 The constant equal to the ratio of the circumference of a circle to its diameter, which is approximately 3.141593. (2)
- 16 The Chandra X-ray Observatory. CXO was launched by the Space Shuttle in July 1999, and named after S. Chandrasekhar. (3)