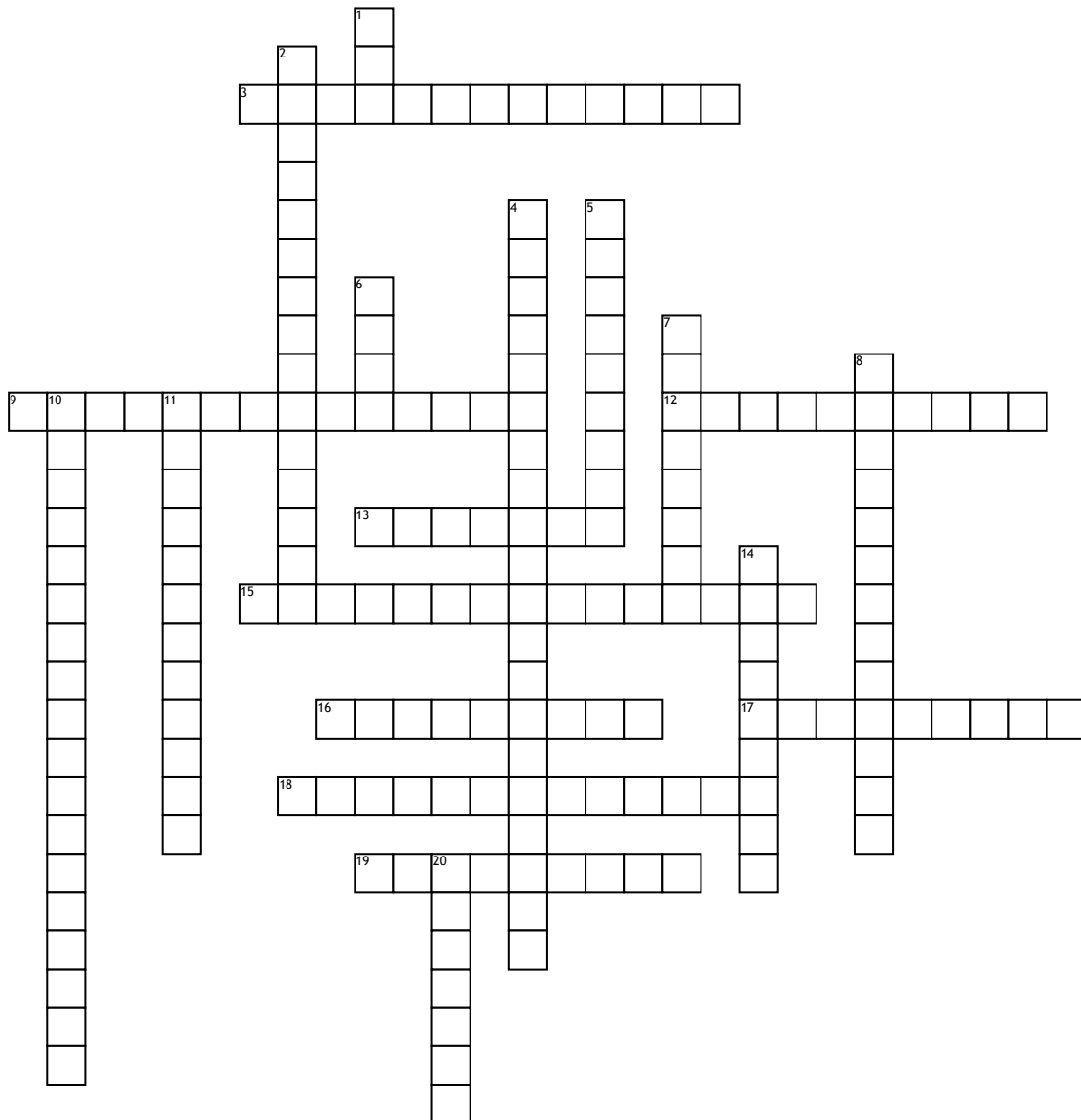


Dr Lisa Harvey-Smith | Square Kilometre Array



Across

3. Invisible, long in range, weak in terms of cosmic forces, can be found in Earth, in galaxies, when stars form
9. _____ can show us what's really going on between the stars and tune in to different things like natural gas, and other different materials
12. The galaxy is rotating much faster than it should be because it contains _____
13. _____ effect states that as something comes toward you the wavelength is shortened and the pitch gets higher, and as something goes away from you the wavelength gets longer and the pitch gets lower, rotation of galaxy
15. The law of conservation of _____ states that when no external torque acts on an object, no change of angular momentum will occur.

16. _____ is the number of occurrences of a repeating event per unit of time.
17. _____ and radio telescopes allow astronomers to study the universe in different ways and different colors
18. Dark matter pervades _____ effect that bends light into a ring
19. Bright stars, before slowly fading from sight over several weeks or months or years.
- Down**
1. The light from _____ takes 8 minutes to reach Earth
2. Project that looks back in time
4. World's Largest Radio telescope (SKA)
5. Radio telescopes use simple _____, collect waves that come from space down to Earth and they bounce off the dish and into a receiver in the middle which turns the radio waves into electrical signals, we can make a picture of the sky in radio waves.

6. Gravitational _____ shows that in the universe all matter has gravity associated with it, things move toward each other, light bent
7. Universe in 21 centimeter wavelength radio wave that's emitted by _____ atoms
8. A vector field that describes the magnetic influence of electrical currents and magnetized materials.
10. Is a radio telescope in the municipality of Arecibo, Puerto Rico. It is 300 meters across
11. Radio waves are so much longer in wavelength than _____, so the collector has to be much bigger in order to make a detailed picture of the sky.
14. Christmas tree dipoles are built in _____
20. Very compact stars, like lighthouses, have two bright beams of radio light shooting out.