## **ACROSS**

- 1 (verb, )'Mix' two particles such that you cannot specify the state of one without specifying that of the other (8)
- 5 Lose quantum information by interacting with environment, typically irreversibly (8)
- 7 Pass through classically-forbidden region (6)
- 9 Quantised excitation of electromagnetic field (6)
- 11 English mathematician and physicist, used Lorentz invariance and quantum mechanics to predict antimatter (5)
- Danish physicist, popularised the Copenhagen interpretation (4)
- 14 Two-level quantum system, unit of quantum information (5)

## **DOWN**

- 1 American physicist, proposed the many-worlds interpretation of quantum mechanics in his doctoral dissertation (7)
- 2 Source of focused light that uses stimulated emission (5)
- 3 Unit of 'quantum angular momentum', also a physicist (6)
- 4 Bosonic excitation, quantised sound wave (6)
- 6 Italian Nobel laureate, created the first nuclear reactor, well-known for wielding a six-inch slide rule (5)
- 8 Adjective to describe a transformation that preserves norms of vectors (7)
- Austrian physicist, the first to propose existence of neutrinos (5)
- 12 German physicist, postulated that squares of amplitudes are measurement probabilities (4)

Across: 1 Entangle, 5 Decohere, 7 Tunnel, 9 Photon, 11 Dirac, 13 Bohr, 14 Qubit.

Down: 1 Everett, 2 Laser, 3 Planck, 4 phonon, 6 Fermi, 8 Unitary, 10 Pauli, 12 Born.