



**Team**

**Rank**

## Fermi Questions

- 1 What is the product of the atomic numbers of Ca, Zr, Nd, Hg and Fm?
- 2 What is the number of faces on an icosahedron raised to the power of the number of vertices on a dodecahedron?
- 3 How long is Interstate 20, running from Texas to South Carolina via Louisiana, Mississippi, Alabama and Georgia?  m
- 4 What is the number in base 10 that is equal to 20202020 in base 20?
- 5 How many LPO mugs, stacked one on top of another, would reach the Orion Nebula (1000 light years distant)?
- 6 How many water molecules would fill 20 LPO mugs?
- 7 What is the kinetic energy of a molecule in air at standard temperature and pressure?  J
- 8 What is the combined kinetic energy of 20 apples dropped from rest from a height of 1 m?  eV
- 9 How many electrons are there in one litre of plutonium?
- 10 If a piece of paper is folded, and its thickness doubled, 20 times over how high would the pile of paper be?  m
- 11 What power is required to heat 20kg of water by 20K in 20s?  W
- 12 What is the gravitational force between two 20p coins separated by 20 times their diameter?  N
- 13 What is the capacitance of two 20p coins held parallel with their faces 20 mm apart?  F
- 14 How many times has the Liverpool Physics Olympics been held?