

NEUTRINOS

the ultimate messengers

Elusive and ghost-like, neutrinos are one of the **fundamental building blocks** of matter...

Neutrinos are emitted copiously by active galaxies, supernovae and stars like the Sun

Light is scattered by gas and dust in space; neutrinos, however, travel **unimpeded** across the Universe - they illuminate parts nothing else can!

neutrino astronomers look for a flash of light, or listen for a bang, when a high energy neutrino crashes into the earth

billions of neutrinos pass through your body every second!

...50% of the **funding** for this project comes from the **Ministry Of Defence**. Some neutrino astronomers utilise military technology

Why are the **military** interested in **Neutrino Astronomy**?

neutrinos are produced in nuclear reactors like those found in submarines and power stations

because, they are so penetrating - neutrinos could be used for intergalactic communications

What are the **implications** of detecting **intelligence** beyond our own?

FLASH

Neutrinos can perhaps answer some of humanities most **far reaching** questions, - such as those about the **origin** and **fate** of the **Universe** - how might we react to such knowledge?

POP!

Neutrino telescopes could be used to **covertly** monitor **nuclear reactors** at opposite ends of the Earth. A **neutrino beam** could neutralise **nuclear reactors** or **nuclear weapons**. Is this right?

