



## **Sixty Second Adventures in Astronomy**

### *Dark Matter*

#### **David Mitchell:**

60 Second Adventures in Astronomy. Number eight, Dark Matter

What's the matter with Dark Matter? Fritz Zwicky was a Swiss astronomer who could probably get you 81 points on a triple word score in Scrabble.

In the 1930s he noticed that galaxies within clusters were zooming around far quicker than their mass would logically dictate.

So he figured that there must be some extra mass in there... some sort of dark, invisible matter, slurping round the universe. He imaginatively called this dark matter 'Dark Matter.' But the problem is trying to prove it. Because unlike other 'dark' things, you can see right through this stuff.

And this gave Zwicky another idea – according to Einstein's theory of General Relativity – the more mass something has the more it magnifies and distorts objects that you can see through it.

So by studying the distortion of distant galaxies, we can calculate that there must be some extra mass between us and them.

But because we can't see it, touch it or weigh it – it's not surprising that we can't figure out exactly what it is.

And that's what the matter with dark matter is – it makes up most of the mass in the Universe – but when it comes to knowing the details, we're still in the dark.