

## Mathematics, Poetry and Experiencing the Ocean

What a treat it is for me to follow Peter Lynch's blogs on 'That's Maths' (Maths and Poetry, Oct 17, Irish Times). Additionally, I delight in the beauty of the sea at Kilkee, and am awed that all elements of the natural world concur in generation and conservation.

The renowned astrophysicist Arthur Eddington, who confirmed Einstein's special theory of relativity on the effect of gravity on light, provides a mathematical and poetic model of the generation of waves by wind. These findings are to be found in chapter 15 of his book *The Nature of the Physical World*.

The Mathematical model in part reads:

... Maintenance against viscosity, by suitable forces applied to the surface.

... Thus we find where  $\rho^2$  has been written for  $gk + T\rho k^3$  as before....

a wind of less than half a mile an hour will leave the surface unruffled. ..

The poetic model is from Rupert Brooks poem: 'The Dead' and reads in part:

*There are waters blown by changing winds to laughter*

*And lit by the rich skies, all day. And after,...*

We should explore how we are informed by patterns disclosed in nature so as to be in full solidarity with one another in all the professions, trades and disciplines so as to promote and maintain sustainable environmental health practices.

Fred O'Brien



**[Maths and Poetry: Beauty is the Link](#)**

[The nature of the physical world](#) by Eddington, Arthur Stanley, Sir, 1882-1944