

Since I could not solve the remaining Millennium Problems, I decided to write limericks about them instead.

## The Millennium Limericks

When fluid commences to flow,  
Does it continue that way? Yes or no?  
The physics says yes,  
But we only guess  
Mathematics will say this is so.

**Navier-Stokes Existence  
and Smoothness**

Poincaré once remarked we expect  
That compact and simply connect  
Implies that the sphere  
Is all we have here.  
And Perelman has proved this correct.

**The Poincaré Conjecture**

Wo sind die Nullstellen von Zed?  
They help me count primes, Bernhard said.  
This problem of Riemann  
Is really a demon.  
I think I'll try Goldbach instead.

**The Riemann Hypothesis**

To prove P's not NP's a test  
To show that you're really the best.  
Perhaps we will see  
That the proof is NP  
So to find it's a difficult quest.

**P ≠ NP**

A curve has a function called L  
Whose order of zero will tell  
The Mordell-Weil rank,  
Says Birch, whom we thank,  
And Swinnerton-Dyer as well.

**The Birch and Swinnerton-Dyer  
Conjecture**

A cycle of Hodge, say on  $X$ ,  
Comes from cycles that aren't as complex.  
That's what is predicted  
And not contradicted.  
Geometers by it are vexed.

**The Hodge Conjecture**

In problems math physicists pose,  
A problem with mass gaps arose.  
So clearly we want 'em  
To make Yang-Mills quantum.  
How to do this still nobody knows.

**Yang-Mills Existence  
and Mass Gap**