



A Physics Songbag Redux

As part of wrapping up our World Year of Physics celebrations in PHYSICS TODAY, we present the winner of the July issue's lyrics-writing contest and offer a new song. Lyrics submissions came from places as far apart as India, New Zealand, and the US. The winner, as chosen by the editors of PHYSICS TODAY, is *The Entanglement Tango* by John Roeder of The Calhoun School in New York City. Roeder teaches both a "Physics First" course to all Calhoun ninth graders and a more traditional physics course to high-school juniors and seniors.

Our special features throughout the year were assembled by a Year of Physics task force, dubbed the "Yoppers." Michael Mendelson (<http://www.slidingscalemusic.com>) came up with *Yopper's Stride* for us, and it has now evolved into *The Physics Today Rag*. We hope you enjoy it.

The Entanglement Tango

(Music © 2004 by Michael Mendelson)

Lyrics by
John L. Roeder

MODERATO (♩ = 150) G MIN D7

The musical score is written for a single melodic line in G minor, 2/4 time. It consists of eight staves of music. The key signature has two flats (Bb and Eb). The tempo is marked 'MODERATO' with a quarter note equal to 150 beats per minute. The score includes various musical notations such as notes, rests, accidentals, and dynamic markings. The lyrics are written below the notes, with some words in blue. The score ends with a double bar line and a repeat sign.

If there's a photon that from any atom is emitted and it runs into a mirror that makes it to be split And
pair of particles that once were interacting and it may be that they no longer are attracting They

If what one does 'gainst the other is pitted they are doing the Entangle-ment Tango If there's a
will always be found on each other impacting as doing the Entangle-ment Tango— Just
they're

how they do it is a mys-tery that keeps us guessing Some thought rel-a-ti-vi-ty they weren't pos-sessing
entanglement was something 'bout which Einstein was pa-rochial "Bout the quantum theory's incom-pleteness he was vocal But
special But

entanglement doesn't come messages pro-cessing doing the En-tangle-ment Tango— En-
that's because he thought from actions must so they're that tangle-ment Tango— Entangle-
the inter-be local and stopped the En-

ment is pos-sible with superposi-tion to be in more than one quantum state must be your con-dition till measurement tells us what's
want to be entangled with another person you must split yourself into more than only one version till measurement finds
you by

real with some pre-cision real with the en-tangled object too. So if you
and what's making an in-cursion so En-tanglement's a tango not for you.

The *Physics Today* Rag

(Sung to the tune of “Yopper’s Stride” © 2004 by Michael Mendelson)

Lyrics by
Stephen G. Benka



We know solvin' Nature's puzzles is so grati- fyin'. Challenges we like but what's so doggone mysti-fyin'—



One piece of the action gives us little traction on the bigger picture for which we could have a bigger reaction.



Solvin' that e- quation and/or fightin' lab frus- tration takes its toll so now and then we need equili- bration.



When we get a headache, time to take a brain break and just sit back with that *Physics Today* rag.



Geo- astro- bio- physics, sometimes even metaphysics, optics, metrics, ethics, civics, even plastics and acoustics;



We get hist'ry lessons and find out what govern-ments are doin'— all around the planet, coverin' the gamut.



Sometimes there is stuff that's just too difficult to think through. Mostly though we read what is both interesting and new.



Now and then it's stuffy, but it's never fluffy and I love to read that *Physics Today* rag.