

SCIENCE

c o n n e c t i o n

ENTERTAINMENT, D7
TV Today, D6



◀ **PIST** An angry-sounding little acronym for "Pressurized Intraluminal Speckle Tracking." This is a homegrown, Ann Arbor acronym for a type of imaging technology. Ben Shapo of the University of Michigan created this name and says it grew out of friendly competitiveness with a team of scientists at Duke University. So remember, the next time you're having a hard time tracking a speckle, don't get angry, get PIST.

▶ **SCUZZY** (SCSD) Contrary to popular belief, this is not a wine snob term, as in "my uncouth host served us lousy sherry and scuzzy port." It actually stands for Small Computer System Interface and is a method for different computer components to connect and communicate with each other.



SERIOUS SCIENCE

with a funny name

The halls of modern science are prowled by beasties with strange names

By STEVE THORPE
NEWS STAFF REPORTER

And now we take a few moments to glimpse into the lives of those merry madcaps and mischievous scamps ... scientists.

Between beefcake calendars and the Hubble Telescope, many of us were beginning to suspect that scientists had a sense of humor, but actually the empirical evidence had been mounting all along.

For many years, whenever an important discovery was unveiled a frantic scramble began. Not for awards or credit or better parking spots outside the lab. No. This mission was more sacred. Persons with IQs greater than you or me (put together) strained their considerable gray matter in the massive search for a SILLY NAME!

Thus, we have reached the point where a group of brilliant scientists can gather and argue, solemnly and passionately, about the nature of "glueballs."

This appears to be a fairly-recent development. Aristotle called his elements "earth, wind, fire and water," not "grimys, windys, burnies and sog-gies." Isaac Newton, upon observing a falling apple, did not name gravitation the "fruity effect." And even a scientist as recent as Albert Einstein was good for very few laughs.

It was perhaps during World War II that acronyms began to appear in science in great numbers. The military, always enamored of official (CINCPAC) and unofficial (SNAFU) acronyms worked closer than ever before with the science community. Was ENIAC (Electronic Numerical Integrator and Computer), the first "modern" computer, named by soldiers or scientists? Probably both.

Strictly practical at first, the acronyms gradually became more and more whimsical. Today, many of the kooky names in science, like "charm quark," aren't even acronyms. The end result is a myriad of funny names that sound like they belong to Muppets rather than science.

"About ten or 15 years ago, I noticed that clever acronyms were really entering my field," says Matt O'Donnell, professor in the Electrical Engineering and Computer Science Department at the University of Michigan.

But why the urge to make merry?

"I think, in some ways, scientists are prolonging their adolescence," says O'Donnell. "I had a physics professor once who said to a class of young scientists 'You lucky physicists are like professional baseball players. You can can grow up and still do what you did as a kid.'"

O'Donnell says that the naming process is informal, yet understood, in his group. Once a new technique or device is ready to be named, everyone

See NAMES, D2



WHIZZYWIG (WYSIWYG)

Computer term stands for What You See Is What You Get. It refers to screen displays, especially for word processors and publishing software, that exactly represent what the final document will look like when printed. Its pleasing sound is a good example of "What You Say Is What You Get."



TWAIN

(Technology Without An Impressive Name)

TWAIN is a computer driver software that enables graphics applications to communicate with a scanner. Created by Hewlett-Packard, we're not sure why it doesn't have an impressive name. One quick trip to the county courthouse and it could be known as R. Worthington Software III.

NEWS ILLUSTRATIONS • KATHY SMITH

ROAST the patient

MRI, or Magnetic Resonance Imaging, is one acronym that most of us have heard. The images provided by this technology are a near-miraculous tool for physicians. Dr. Thomas Chenevert, associate professor in the Radiology Department at the University of Michigan, says that there are "hundreds" of complex methods of using this tool and nearly every one has an acronym.

"MRI is an extremely flexible modality," Chenevert says. "There is great variety in the type of biophysical properties contained in the body's magnetic signals, numerous ways to manipulate this magnetism and many ways to extract the information as an image. As a result, complex MRI methods are summarized by their inventors into descriptive, or at least catchy, acronyms."

Some examples:

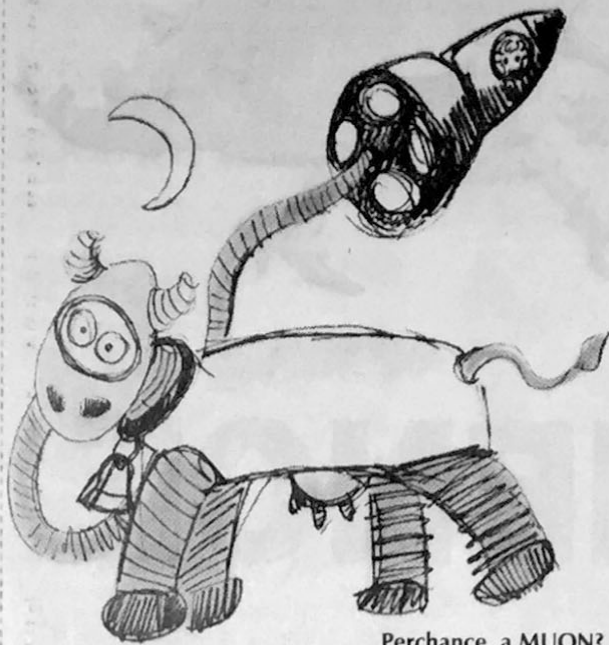
GRASS - Gradient Recall Acquisition in the Steady State
FLASH - Fast Low Angle Shot
SMASH - Short Minimum Angle Shot
SPAMM - Spatial Modulation of Magnetization
RARE - Rapid Acquisition with Resolution Enhancement
ROAST - Resonant Offset Averaging with Steady State
RODEO - Rotating Delivery of Excitation Off resonance
Other acronyms include STEAM, PRESS, DRESS, FADE, FLAIR, QUEST, INEPT, INADEQUATE, DUFIS, OUFIS, RUFIS, CYCLOPS and SADLOVE.

Whoa!

"Ground Control to Dr. Tom. Shut down the main acronym thruster." Obviously the field of radiology has taken to this trend in a big way. They like letters so much, Vanna White should be an associate professor.

All this terminology provides a useful shorthand, but could lead to some odd overheard conversations. "Our INEPT procedure was unsuccessful. Prepare this patient for INADEQUATE treatment. If he doesn't respond, SMASH him."

- Steve Thorpe



Perchance, a MUON?

Continued from D1

NAMES: Where's WIMP?

who participated in development begins thinking up clever and appropriate names. The name has to not only be clever, but appropriate. It's no good thinking up a good name that isn't also a descriptive acronym.

The designated namers then begin offering their creations to the group and a winner is chosen by acclamation. Eureka!

So why do scientists give devices, discoveries and techniques acronym names in the first place? O'Donnell believes the reasons are twofold:

First, because a full name is usually so unwieldy and awkward. "Try saying 'Pressurized Intraluminal Speckle Tracking' fast a couple times," he laughs.

Secondly, because the thing being named is often removed from everyday reality. Elementary particles are indescribably tiny and may only exist for a fraction of a second. Some of the devices O'Donnell works with in the medical field perform apparent miracles that defy understanding by the average person. "They're outside our physical experience," says O'Donnell. So because a good name like "cooking pot," isn't immediately obvious, the search begins.

Perhaps the Nobel Committee will eventually recognize these efforts with a "Best Goofy Name" category. Until then, we can just pick our own favorites.

GLUEBALLS

This is a hypothetical state involving two or more gluons having no overall color. Got that? There is no conclusive evidence for the existence of glueballs. That's OK. They don't mind.

MUONS

A muon is actually a type of lepton.

There, we've cleared that up.

TOP QUARK, BOTTOM QUARK

A quark is a REALLY BASIC form of stuff. So basic, in fact, that it takes several of them to make a proton or neutron. Quarks come in "flavors" called

"up, down, strange, charm, top and bottom." In addition, each quark also comes in three "colors." Physicist Murray Gell-Mann adopted the term quark in 1964 from his reading of "Finnegan's Wake" by James Joyce. The Irish author, obscure as always, refers to "Three quarks for Muster Mark." Believe it or not, there are also 18 different types of ANTIQUARKS, but we're not going to talk about them because we don't want to be negative.



NEWS ILLUSTRATIONS • KATHY SMITH

GLUONS

Although they sound like subatomic post-it notes, these are actually the cosmic rubber bands that keep quarks together, creating protons and neutrons. Gluons transmit the "strong force," which holds together the atomic nucleus, between these particles.

SLEPTON

A boson partner of an existing fermion. Also from the particle family, this has nothing to do with the British Royal Family.

WINO

A fermion partner of an existing boson (see above.) We'll drink to that.

WIMP

The appropriately-named Weakly Interacting Massive Particle doesn't like to throw its weight around. Maybe it needs assertiveness training.

TOKAMAK

This is an acronym for "toroidal magnetic chamber" — in Russian. Yes, acronymitis is not a disease limited by national borders. This is the circular tube, much like a doughnut, used in efforts to create a sustained fusion reaction. It was demonstrated in 1968 by Russian physicist Lev Artsimovich. A tokamak is a toroid-shaped hollow chamber operating on magnetic principles. A doughnut is not.

GIGO

A computer term meaning "Garbage In, Garbage Out." Usually said with a sneer by guys who look like Bill Gates. It means that if you put dumb things into a computer, dumb things come out. Something to think about the next time dumb things come out of your computer.

GOOEY (GUI)

Stands for Graphical User Interface. Computers using GUIs dispense with arcane codes and inscrutable commands. Those are replaced with easy to understand symbols and words. Software developers say that their goal is to make computers simple enough for even the boss to use. This we have to see.