

Computer game composers

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He has uploaded most of his original works to his website (<http://remix.overclocked.org/>) which includes submissions from more than 500 fellow computer game composers.

This week (the site had almost two million hits in the last seven days), the most popular song is SuperBuckJazz, a Glenn Milleresque jazz remix of the *Super Mario Brothers 2*. It's by Estradasphere, a California-based sextet with a "wide range of influences that transcend typical genres and musical stereotypes", according to the band's website.

A dreamy bass-heavy electronica version of the *Guardian Legend*, called the *Liquid Corridor Clean Mix*, comes in at No. 2, while third place goes to a re-vamped *Final Fantasy* theme that boasts jazz stylings, and delayed electric piano riffing.

Tunes by SquareSoft (the popular games developer behind hits such as *Chrono Trigger*, *Final Fantasy* and *Xenogears*) are the most re-mixed while classic gaming titles such as *Bubble Bobble*, *Super Mario*, *Street Fighter 2*, *Tetris* and *Lemmings* are nostalgic favourites.

"It's like a test, a challenge for most composers and arrangers to see just how much they can keep the original, while also changing and putting their stamp on the music," Lloyd said.

To encourage individuality, online remixing communities often hold competitions asking remixers and composers to create the best, most unusual arrangements of specified video game theme songs.

The diverse results will astound anyone who remembers the original, repetitive, largely monotonous game themes. A flick through Lloyd's website provides 15 different interpretations of the *Castlevania* theme, ranging from a gritty and chaotic trance version to a more subdued orchestral version. Similarly there are more than 60 different interpretations of the various *Final Fantasy* themes, three *Lemmings* remixes and several dozen *MegaMan* remixes.

"I would liken the soundtracks of games even from 20 years ago to film sound tracks. There aren't many Mozarts any more, but we do have John Williams, James Horner and Howard Shore and really, film song composers and game theme composer serve similar functions. They provide a score to a story that a viewer is, in one way or another, taking part in," he said.

And he's right. Big-name bands



Sound way to learn maths

A teacher puts complex maths theories to music and SAMANTHA AMJADALI finds it adds up

Larry Lesser has discovered the secret to fostering a love for mathematics in his students — Kenny Rogers' catchy ballad *The Gambler*.

Dr Lesser, a mathematician with a penchant for song, found his charges couldn't grasp the bamboozling theories in his university courses. So he simply put the complex formulae and equations, to music. Now students flock to his classes — and they're getting better marks.

His students learn to memorise the value of Pi to the tune of Don McLean's *American Pie*, they're taught the features of a graph to Bette Midler's *From A Distance* and, for those interested in the mathematics of random occurrences such as lotteries it's *The Gambler* which they gleefully sing along to.

Dr Lesser said his two-minute maths ditties were generally the only thing a student would recall from a lesson — sometimes the entire semester's course.

"Although music does help

with memorisation, I use it more for motivation," said Lesser, a maths professor at Armstrong Atlantic State University in Savannah, Georgia.

"They're certainly outstanding mnemonic devices to help students learn and recall information, often with more enjoyment or less anxiety."

Dr Lesser chooses rap songs for memorising basic facts, but prefers longer, catchier tunes such as *We Will Graph You*, a reworking of Queen's classic *We Will Rock You*, (lead singer Freddie Mercury is pictured above) for learning fundamental theories such as the procedures needed for graphing a line or parabola.

But Dr Lesser won't whack his precious words into any old song. He chooses his songs lovingly and avoids profane songs and sacred tunes, preferring instead to use chart toppers that his generally teenage students will know.

www.math.armstrong.edu/faculty/lesser/Mathmusician.html

The method

Freddie Mercury's algo-rhythmic vocals have been "re-purposed" by Larry Lesser, who teaches students to graph a given function using the tune of Mercury's *We Will Rock You*.

The students must chant and clap the song in unison.

Lesser's bizarrely effective rendition is called *We Will Graph You* and goes like this:

You wanna draw a parabola from the general form algebra.

Don't despair, complete the square. The x of the vertex comes out there, and we will, we will graph you! (chorus twice repeated).

The vertex now is figured out, but does the graph smile or frown?

The number next to the square of x, gave the sign to make the sketch, now — we will, we will graph you! (twice repeated).

Find and plot any x-intercepts, the constant c is the y-intercept.

A vertical line through the vertex; gives symmetry for your sketch, and we have, we have graphed you! (twice repeated).

myweb
kid stuff

I've been spending a lot more time in my school's library lately, thanks to a cruel, evil friend who got me hooked on Calvin and Hobbes comics.

Usually I only like the type of subtle, cynical humour found in *Dilbert* and *Garfield* comic strips, but Calvin and Hobbes has an odd charm about it.

Hobbes is a down-to-earth stuffed tiger who, when asked the meaning of life, replies "We are here to devour each other".

Calvin is the not-quite-down-to-earth kid who uses snow as a political weapon against his parents. Specifically, he makes snowmen holding picket signs protesting against everything that makes life tough for us kids.

There are plenty of examples at uComics (www.ucomics.com/calvinandhobbes/) which calls itself the Best Comic Site in the Universe. You'll also find links to strips about everyone's fave fat cat, *Garfield*, (www.ucomics.com/garfield/). You can get a *Garfield* or *Calvin and Hobbes* comic e-mailed to you each day.

Most people might think economics is a dead boring subject, but it can be really (yes, really) funny.

Economics Comics (<http://hubba.uta.edu/~depken/misc/comics.html>) is filled with an assortment of money-related comics, including a number of *Dilbert* strips. I wonder if my Economics teacher will let us read *Dilbert* comics in class from now on? Hmrrm.

My next stop was a site looking at cynical humour. One of the best I found was the oddly-named www.nukees.com which is about the daily life of a cynical, mad scientist named Gav. It's littered with bizarrely long and confusing phrases such as "depression of electro-magnetic propagation in a bose-einstein condensate", but otherwise it isn't too complex.

A word of warning though, the original art is nowhere near as good as the latest strips.

For anyone who has something serious they want translated (I stumbled across a French sentence in one of the comics), I wouldn't recommend using Babel Fish (bahelfish.altavista.com/tr) because it can't be the best translator out there. I'm guessing you can't beat a human being, preferably one who charges money for the service.

But for anyone like me, who likes warping the English language beyond recognition for fun, it's a brilliant time-waster.

I typed in "I wonder what this sentence will be like when I