

# Can you keep up with the dance music that accelerates forever?

February 28 2012

---



A scientist from Queen Mary has produced a dance track that sounds like it is accelerating forever.

The track is based on an audio [illusion](#) that can make a [rhythm](#) sound, impossibly, as if it speeds up to hundreds of times faster than its starting tempo. Dr Dan Stowell from Queen Mary's Centre for Digital [Music](#) (C4DM) has been investigating the illusion - and now he's turned it into dance music.

Originally produced by French composer and scientist Jean-Claude Risset, the Risset Illusion superimposes and loops rhythms of different

speeds. Dr Stowell explains: "Your brain has a preference to focus on rhythms of a particular speed, so as the tempo changes your attention is naturally drawn to events in the mid-tempo range, even when you are trying to follow a beat that is always accelerating."

The loudness of the different rhythms is also manipulated to keep the recording from turning into a pile-up of an infinite number of sounds.

Dr Stowell was studying how to use the illusion in combination with conventional music rhythms, and following a conference presentation he was asked by a digital music label to produce a piece of dance music based on the idea.

He explains: "Some researchers have studied what happens when people are asked to tap their finger to these weird rhythms, but it would be even better to see what happens when people try and dance to it."

Dr Stowell researches the analysis and synthesis of sound, and also produces music under the name MCLD. He adds: "In the track, the tempo doubles about every 30 seconds, which is far beyond what happens in most music. It means that, if you say the track starts off at 120 beats per minute, at the end it is nominally going at 15,360 beats per minute."

For comparison, the Greek tune known as Zorba's [Dance](#) or Sirtaki famously speeds up as it goes along, but from 100 bpm only goes up to around 170 bpm.

"Despite speeding up so much, the Risset Illusion prevents it from sounding a complete mess, meaning it can carry on accelerating indefinitely" adds Stowell.

The seven minute track is featured on an EP released on Monday 27

February by Chordpunch, titled RissEP - a play on Risset's name. Commenting on the pun, Jean-Claude Risset said: "I do not consider the names you propose as disrespectful."

**More information:** A one minute teaser of the track is available online at: [chordpunch.com/2012/02/rissep-out-feb-27th](http://chordpunch.com/2012/02/rissep-out-feb-27th)

Provided by Queen Mary, University of London

Citation: Can you keep up with the dance music that accelerates forever? (2012, February 28) retrieved 25 April 2024 from <https://phys.org/news/2012-02-music.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.