

**Jim Plamondon**

## Isomorphism: The Simple Elegance of Music

Thumtronics has discovered a unifying principle of music which it calls "isomorphism" (from the Greek roots for "same shape"). Combined with tonic solfa, the result is "isomorphic solfa," as embodied in Thumtronics' forthcoming electronic musical instrument, the Thummer™.

Dr. Sam Leong, Director of Music Education at UWA, wrote that *"Throughout my work in music education for 30 years, I have not seen any innovation with as much potential to revolutionise music education as the Thummer and isomorphic solfa."*

Ron Gorow, author of *"Hearing and Writing Music,"* wrote that *"This is a dramatic advance in music theory, possibly the most innovative in 300 years, since the introduction of the piano keyboard and equal temperament."*

This workshop will explore the use of isomorphic solfa in keyboard design, music theory, notation, and pedagogy. Hyperbolic or historic? Come to this workshop to decide for yourself.

**Presenter Bio:** Jim Plamondon is CEO of Thumtronics Ltd., which is developing a new electronic musical instrument, the Thummer. His degrees are in geology and computer science, and his experience is in marketing, but his heart has always been in music.

**Andrew Sorensen**

## Impromptu

Impromptu is a new language for exploring live programming. Live programming, also known as real-time programming or on-the-fly programming, focuses attention on the exploration and development of algorithms at runtime. Impromptu provides an environment designed to allow performers to create, modify and extend running code.

Impromptu is a Scheme implementation incorporating a sample accurate scheduling engine, a shared multi-user runtime environment, sound synthesis/DSP libraries and an OSX IDE. Impromptu's main departure from other existing Lisp music systems is its shared runtime environment, ability to schedule code callbacks with sample-accuracy, and integrated audio processing.

This workshop will provide a brief overview of Impromptu's design and construction, followed by a hands on tutorial session which will introduce the Scheme language, Impromptu runtime and OSX IDE. Basic live programming techniques will also be discussed during the course of the workshop.

\* Impromptu for OSX will be provided to all workshop attendees.

\*\* The author will be happy to assist interested Windows and Linux users to install a command line only implementation before the workshop commences - pre-installing emacs is strongly recommended for command line users.

