

The logo for MISO MUSIC PORTUGAL features the text 'MISO MUSIC PORTUGAL' in a bold, black, sans-serif font. The text is overlaid on a square graphic with a red-to-yellow gradient background and a yellow grid pattern.

MISO MUSIC PORTUGAL

Centro de Informação da Música Portuguesa
Membro da International Association of Music Information Centres
Secção Portuguesa da Sociedade Internacional de Música Contemporânea
Secção Portuguesa da Confederação Internacional de Música Electroacústica
Membro Associado da European Conference of Promoters of New Music

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MÚSICA VIVA / ENTR'ARTES 2005

Music Algorithm Software

17 - 18 September

Centro de Apoio Social de Oeiras

(next to the Oeiras Lyceum, 150 metres from Oeiras Train Station)

The “Música Viva / Entr’Artes 2005” Festival, in conformity with the general lines of its programming, namely the relationships between music and technology, includes this year, in parallel with concerts including instruments and electronic media, two sessions entitled “Music Algorithm Software” for the presentation of work that has come about precisely from a reflection on the relations between art and information technology, something which has in many cases given rise to the development of software in order to respond at the same time to conceptual, aesthetic and technical questions. Algorithmic software or “the new generating instruments of meaning for creation”.

Music Algorithm Software I

Saturday 17th September, 14h30 to 16h30, at the Centro de Apoio Social de Oeiras (free entry)

SARC Software

This session will present algorithms developed at the Sonic Arts Research Centre for sound interaction and synthesis. The presentation includes the following software systems:

ESCORE - Real-Time Notation in Interactive and Live Electronic Performance Environments.

Physical Models in Max/MSP and Javascript - Simulation of strings and membranes.

Audio Description - Dynamic localisation-based delivery of spoken text and environmental sound for use in galleries and museums.

Score following - Multi-agent algorithms for score following.

Video-based interactive sound installation - Software system for large-scale permanent installations using webcams and multi-channel audio systems.

Swarm Lab - designed to exhibit the emergent qualities found in Craig Reynolds Boids algorithm in a sonic form through a system designed for sound spatialisation within the multi channel speaker array found in SARC’s Sonic Laboratory.

Social phylogeny - addresses the modelling of a natural emergent listening environment as found in a frog ecology. This is a system that considers a listener as a participating agent relying on aural feedback for navigation within an innately emergent sonic environment.

SARC

The Sonic Arts Research Centre is a newly established centre of excellence, dedicated to the research of music technology. This unique interdisciplinary project has united internationally recognised experts in the areas of musical composition, signal processing, internet technology and digital hardware.

Pedro Rebelo

Composer/ Digital artist working in electroacoustic music, digital media and installation. His approach to music making is informed by the use of improvisation and interdisciplinary structures. He has been involved in several collaborative projects with visual artists and has created a large body of work exploring the relationships between architecture and music in creating interactive performance and installation environments. This includes a series of commissioned pieces for soloists and live-electronics which take as a basis the interpretation of specific acoustic spaces. In the duo *laut* with saxophonist Franziska Schroeder he investigates the extension of interfaces and control in interactive performance practices. His electroacoustic music is featured in various CD sets (*Sonic Circuits IV*, *Discontact III*, *Exploratory Music from Portugal*, *ARiADA*). His audio-visual work "*lautomata.3*" has recently been awarded the Special Recognition prize from the CynetArt Festival, Dresden.

Pedro conducts research in the field of digital media, interactive sound and composition. His writings reflect his approach to design and composition by articulating creative practice in a wider understanding of cultural theory. Pedro has been awarded a PhD in composition from the University of Edinburgh and is currently a lecturer and researcher at the Sonic Arts Composition at the Sonic Arts Research Centre, Belfast.

Michael Alcorn

Born in 1962 studied at the University of Ulster, and completed a PhD in composition at the University of Durham. He was appointed Composer-in-Residence at Queen's in 1989 and in 1990 was appointed to the post of Lecturer in Music in 1990 and became Senior Lecturer in 1997. He is Director of SARC (the Sonic Arts Research Centre) and director of the BSc in Music Technology at Queen's. In 1994-95 he was on sabbatical leave to CCRMA (Center for Computer Research in Music and Acoustics), Stanford University, California and more recently was carrying out research work in granular synthesis at Simon Fraser University, Vancouver.

Dr Alcorn's compositional activities range from music for conventional instruments to works for live or taped electro-acoustic performance. His music has been performed and broadcast in the UK, Europe, North and South America and the Far East. He has received commissions from the BBC, The National Symphony Orchestra of Ireland, the Nash Ensemble, Singcircle, the Smith Quartet, Darragh Morgan, the Irish Chamber Orchestra, Opera Theatre Company and the Ulster Orchestra.

His work has been programmed at a number of international computer music conferences and he was a featured composer at the Elektrisk Helg Festival in Malmö, Sweden, in 1997 and at the "Northern Ireland Now" Festival in Munich in 1999. He was appointed a Director of International Computer Music Association in January 2004.

M-Objects: a small library for musical rhythm generation and musical tempo control from dance movement in real time

This software library allows a dancer to control the tempo of an electronically-generated music score, and/or generate musical rhythmic structures from bodily movement in real time in interactive dance performance.

Carlos Guedes

Born in Oporto in 1968.

Carlos Guedes has completed his Bachelor degree in Composition at Escola Superior de Música e das Artes do Espectáculo in 1993 and his Master degree at New York University in 1996.

He also attended numerous masterclasses and postgraduate studies in Electronic Music at the Haia Institute of Sonology. He has completed his Phd in Composition at the New York University where he worked as Graduate Assistant in the Composition course at the Department of Music and Performing Arts from 1996 to 1998.

He has been the coordinator of the Composition course at ESMAE (Oporto) since 2003, where he teaches Composition, Electroacoustic Composition and Design at the Music and Theatre Departments since 2002.

Carlos Guedes has presented several conferences and paperworks about the use of algorithms in the composition process and real time handling.

As a composer he has worked with other artists of different areas specially Dance, Theatre and Cinema and has also carried through some interactive installations.

Spatial Movement

The focus of this demonstration is examples of studies of spatial movement carried out tridimensionally on the computer, using virtual cameras and geometric models of control of algorithms, having recourse to objects in the **a-objects** collection which André Sier has developed for Max/MSP/Jitter visual programming

André Sier

Programming-Artist, he develops interactive computer environments operating as installations using code generated images and sound, applying the algorithm process to several media. Teaches Audiovisual Programming in MAX/ MSP/ Jitter at Aula do Risco and during several workshops. André Sier emphasizes the works presented at Festival Música Viva 2004 in Lisbon, at Hertzoscópio 2004 in Oeiras or Arco 2004 in Madrid.

Studied Painting and Sculpture and has a degree in Philosophy.

Music Algorithm Software II

Sunday 18th September, 14h30 to 16h30, at the Centro de Apoio Social de Oeiras (free entry)

Real Move

“Real Move” is a computer software program written for real time control of the spatial trajectory of sound.

Sound sources, either from live audio input or sounds played from disk, or both concurrently, can be made to move dynamically within a stereo, quadrasonic or an 8-channel acoustic environment that can be freely interchanged.

The simulation of the moving sounds is accomplished with a new approach to the intensity panning technique and with distance and motion cues including Doppler shift, reverberation and spectral filtering.

To control the location of the sound(s) in real time a group of controllers which include a joystick and several MIDI Controllers, are used as the Human Computer Interface.

The sound trajectories can be recorded and automated for later playback. Furthermore, they can be reversed, tempo shifted (speed change), transposed, inverted, etc.

Several sound files can play simultaneously their previously recorded trajectories and they can be made to play alongside the sources that are going through real time control.

Besides the direct control of the sound source(s) using the controllers, the software also performs automatic trajectories. These include circular motion allowing a wide range of radial speeds and radial distances that can also be changed in real time, as well as other types of automatic geometric trajectories, random driven trajectories, etc.

Besides the features related with the motion of sound in real time, another important feature of the software is the capability of assigning different DSP functions to each separate playback channel in the audio playback set up. This technique can link a given spatial location to a particular type of sound processing. Additionally, the DSP functions can also be made to dynamically change over time and to also move within the acoustic space thus presenting further creative possibilities. “Real Move” has been written with the Max/MSP programming language.

Tomás Henriques

Tomás Henriques was born in Vila Franca de Xira, Portugal in 1963. He studied trombone, piano and composition at the Conservatory of Music at Lisbon from 1977 until 1987 when he obtained his diploma in Composition. At the Conservatory of Lisbon he studied with composers Constança Capdeville and Jorge Peixinho.

His continued interest in new technologies applied to music led him to Paris where he studied at G.R.M. (Groupe de Recherches Musicales) with Philippe Mion in 1988. He later went to the United States where he got a Masters and a Ph.D. at the University at Buffalo in New York. His main professors in Buffalo were Charles Wuorinen and L.Hiller. The pieces *Sibila I* (1990) for piano and live electronics and *Sudeste* (1992) for 5 percussionists are two important works from this period which exhibit a language rooted in serial procedures.

His compositions have been commissioned by institutions such as the Gulbenkian Foundation, *Unknown Winds* (2004) for piano quintet, *Frames* (1997) for 14 soloists, the Portuguese Ministry of Culture, *Circle* (2000) for solo flute, the Jorge Peixinho Electronic Music Studio, *Trois Rêves* (2002) for tape music, the Musica Viva Electronic Music Festival, *Turning Points* (2003) for string quartet and electronics, etc.

He has presented papers on computer music subjects at the Third Practice Electronic Music Festival in Richmond-Virginia, USA, in 2004 and 2002, at the SEAMUS (Society of Electroacoustic Music of the United States) in Denton-Texas, USA in 2000 and at the ICMC (International Computer Music Conference) in San Jose-California, USA in 1992. He maintains a busy schedule as a lecturer on both electronic music and contemporary music and as a researcher he has developed music software for sound spatialization and for new MIDI interface controllers.

His compositions have been played in Music Festivals such as the North American New Music Festival, the June in Buffalo Contemporary Music Festival, the Musica Viva Festival, the Festival Synthèse, the Logos Festival, the Art Series Now festival, etc, and in several concerts in USA, England, France, Hungary, Italy and Spain.

His music has been recorded by the Numerica and MisoRecords labels.

Presently he is a Professor of Composition and Theory at the Faculty of Social and Human Sciences at the New University at Lisbon. At this university he also belongs to CESEM (Center for Studies in Aesthetics and Sociology of Music), a research group where he is developing a project on virtual room acoustics and also research on sensor technologies applied to music performance.

Grenzenlosefreiheit ////

It aims at being a performance, an instrument, a game, all at the same time. being as simple and instantaneous as a game, the seriousness of playing an instrument gets combined with the amusement of a performance event.

Grenzenlosefreiheit //// uses the most recent technologies for realtime interfaces, sound synthesis and spatial projection, designed for this particular project.

Daniel Teige

Born 1977 in Berlin. Studies in electronic music and sound design at the electronic studio of Berlin Technical University. Works as a sound artist, composer, performance artist and sound director. Xenakis remix "persepolis" and "kraanerg". Sound artist for eve sussman's rufus corporation, New York.

Martin Rumori

Born 1976 in Berlin. Studies in musicology, computer science and philosophy at Humboldt and Technical Universities in Berlin. Sound artist, software developer. Lecturer at the Academy of Media Arts, Cologne. focus on everything with real or virtual knobs or keys.

Stefan Kersten

Born 1978 in Ingolstadt. Studies in communication and computer science at Berlin Technical University. Works as a sound artist and software developer. Special focus on networked and interactive, intelligent and self-organizing systems.

IRIN

IRIN is an application (standalone Max/MSP) dedicated for composition and manipulation of musical structures, based essentially on the principle of micro-assembly.

IRIN allows the expansion of the paradigm of musical writing and of the composition of sound, introducing notions of syntax and hierarchy of musical structures.

Carlos Caires

He earned a Licenciatura degree in composition at the Escola Superior de Música de Lisboa in 1990, where he studied under Constança Capdeville and Christopher Bochmann. He was then awarded with a scholarship by the Instituto Politécnico de Lisboa to complete a Maîtrise and a D.E.A. degree (1999/1999) and, later on, by the Fundação para a Ciência e Tecnologia to complete a Doctorate degree, both at the Paris VIII University (Ufr Arts, Philosophie et Esthétique - Département de Musique), under the supervision of Horacio Vaggione.

He attended composition and analysis seminars with Emmanuel Nunes, Jorge Peixinho, Gilbert Amy, Robert Sherlaw Johnson, Antoine Bonnet, Francis Bayer, among others. He also attended seminars regarding choir conducting, orchestral conducting and Electronic Music. Since 1991, he has taught Analysis at the Escola Superior de Música de Lisboa. He is Artistic Director (since 2001) of the contemporary music ensemble OrcestrUtopica.

Both student and professional ensembles and soloists have performed Caires's music in Portugal and France. Among the performers of his music are the SinfoniaB, the Sinfonietta de Lisboa, OrcestrUtopica and the Ensemble Futurs-Musiques.

He has received the Joly Braga Santos Composition Prize (1995) the Claudio Carneiro Prize (1996) and the ACARTE-Madalena Perdigão Prize (1998).