MOLITVA — Composition for Voice, Live Electronics, Pointing-At Glove Device and 3-D Setup of Speakers

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MOLITVA is Macedonian for prayer. Prayer also intended as desire, plea. The work incorporates manipulations of Macedonian sacred chants and songs. Musically, the piece builds on melodic, harmonic and rhythmic elements found in the Macedonian sacred and secular music. This performance has been written for Solo Voice, Live-Electronics, 3-D Setup of Speakers and the Pointing-At WIMU / 6-DOF Glove developed by the Tyndall Institute of Cork and The Interaction Design Centre at the University of Limerick. "POINTING-AT" is a new tool for gesture control of sound in a 3D space, sound browsing and manipulation. It is built around our 25mm WIMU which enables 6-DOF and it consists of three single-axis gyroscopes, ADXRS150, two dual axis accelerometers, ADXL202 both from Analog Devices, and two dual axis magnetometers, HMC1052L from Honeywell. The ADC is a 12-bit AD7490 from Analog Devices. The ADC converter has a Serial Peripheral Interface (SPI) that connects to an ATMEL microcontroller. The incoming data calculates the orientation of the sensor, which is considered to be the orientation of the hand. Ultimately, we mapped the orientation of the hand to a particular speaker in the 3D physical space using Max/MSP and its libraries such as Jamoma, ICST Ambisonic Tools and VBAP. The orientation is also use to browse sound libraries, select digital audio effects and modify their parameters.