

## **Curriculum Vitae**

### **CONTACT INFORMATION**

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### **PROFILE**

Andrey Smirnov was born in Moscow, Russia, 9.01.1956.

He is an interdisciplinary artist, independent curator, composer, author, educator, researcher and developer of interactive computer music techniques.

He is a founding director of the Theremin Center for Electroacoustic Music at Moscow State Conservatory and the lecturer at the Rodchenko School of Photography and Multimedia in Moscow, where he teaches courses on history and aesthetics of electroacoustic music, sound design and composition, new musical interfaces and sensor technology, introductory digital audio signal processing and sound synthesis. He has conducted numerous workshops and master classes in the U.S., Europe and Russia, and participated in various festivals and conferences.

Since 1976 he is conducting research on the development of electronic music techniques, gestural interfaces, hardware and software sensor technology with particular interest in non-linear methods of interpretation using custom hardware and software.

He is collecting and keeping unique archives on the history of Music Technology and Sound Art in the early 20-th century Russia as well as original historical electronic musical instruments, combining deep research into the history of music technology with extensive experience of computer assisted composition and interactive performance.

### **GRADUATE EDUCATION**

**1973-1979** – Moscow Institute for Physics and Technology. MS. 1979.

### **PRESENT POSITIONS**

**1992** - Founding Director and workshops instructor at the Theremin Center for Electroacoustic Music, Moscow.

**1999** - Chief of the Sector for Multimedia Projects of the Center for Electroacoustic Music at Moscow Tchaikovsky Conservatory.

**2006** - Founder and Artistic Director of the Moscow Laptop Cyber-Orchestra.

**2008** - Senior Lecturer at the Contemporary Music Department, Moscow Tchaikovsky Conservatory. Annual lecture course 'Introduction to Electroacoustic Music Composition' including practical Acousmatic Studies for composers.

**2010** - The Lecturer at Rodchenko School of Modern Photography and Multimedia, Moscow. Annual lecture course 'The Theory and Practice of Multimedia'.

## **SELECTED OTHER TEACHING AND ACADEMIC ACTIVITIES**

**2006-2009** - Lecturer at the IT Department, Moscow University for Psychology and Education. The course on Sound Design of Multimedia Programs.

**2003-2005** - Invited Lecturer at Pro Arte Institute, St. Petersburg. The course "*Acousmatics and Interaction*". Monthly lectures, workshops, presentations, concerts.

**1995-1997** - Chief of the Cross-Media Studio founded in cooperation with the Soros Center for Contemporary Arts (Moscow) to provoke and develop cross-disciplinary projects between technologists, visual artists, dancers and musicians.

**1994** - Visiting scholar at CCRMA, Stanford University, California.

**1993** - Visiting professor at Bregman Studio, Dartmouth College, Hanover, New Hampshire, USA

## **PREVIOUS JOBS**

**1988-2000** - Executive Director and Music Director of the Chet-Nechet Theatre, Moscow

**1987-1992** - The Head of the Sound Engineering Department at the Theatre Workshops Association, Moscow.

**1982-1987** - Developer of the computer-controlled sound synthesizer for the Emosaurus Project (brainwave biofeedback system, based on interactive audio-visual environment).

**1982-1987** - The senior engineer at the Laboratory for Differential Psycho-Physiology at the Psychology Institute of the Russian Academy of Sciences.

**1980-1982** - The senior engineer and developer of the multichannel digital sound spatializing systems at the Audio-Visual Group of the Astronautics Memorial Museum, Moscow.

**1980-1991** - The founder and the Head of the first underground private company in Russia, manufacturing electronic music equipment (legalized in 1988 after official legalization of private business activities during Perestroika).

**1979-1980** - Engineer at the Laboratory of Vibrations at the Physical Institute of Russian Academy of Sciences, Moscow.

**1976-1982** - The 2<sup>nd</sup> oboist of the Symphony Orchestra at the Central House of Scientists, Moscow.

**1978-1981** - Engineer at the Laboratory for Musical Acoustics at Moscow State Conservatory under the leadership of the professor Andrey Volodin (development of the modules for the experimental sound synthesizer).

**1973-1979** - Student at the Department for Physical and Quantum Electronics at the Moscow Institute for Physics and Technology.

## **EDITORIAL AND JURYING ACTIVITIES**

**2011** - Member of the selection commission at ICMC-2011.

**2011** - Jury member of the International competition Pro-Contra, Moscow.

**2008** - Scientific editorial board, SPECTROPIA – Illuminating investigations in the electromagnetic spectrum. Acoustic Space, #7, RIXC, Riga.

**2007** - Digital Musics jury member, PRIX ARS ELECTRONICA 2007, Linz, Austria.

**2002** - Jury member of the International competition «Nam June Paik Award», Dusseldorf, Germany

**2001** - Jury member of the experimental films competition “Super-Amateur Cinema”, Moscow

## **SELECTED WORKSHOPS, PUBLIC LECTURES AND PRESENTATIONS**

**2011, October.** Keynote lecturer at SEEING SOUND 2 practice-led research symposium. Lecture ‘Sound Machines of the Revolutionary Utopia. Russia 1910-30s’. The Centre for Musical Research at Bath Spa University, UK.

**2011, June.** Lecture 'Synthesized Voices of the Revolutionary Utopia: Early Attempts to Synthesize Speaking and Singing Voice in Post-Revolutionary Russia' in the framework of the conference 'Electrified Voices. Media-Technical, Socio-Historical and Culturological Aspects of Voice Transmission'. University of Konstanz, Germany.

**2010, December.** Lecture "Sound out of Light and Paper", workshop on interactive music. Academy of Music in Lodz. Gdanska 32, 90-716 Lodz, Poland.

**2010, October** - Lecture "Sound Machines of the Revolutionary Utopia. Russia 1920-s and beyond". Conference "Music and Politics". Aristotle University of Thessaloniki, Greece. School of Political Sciences.

**2010, October** - Lecture - "Sound out of Light and Paper" at the Museum for Contemporary Arts, Thessaloniki.

**2010, April.** Lectures "In the Beginning was the Word. Art of Sound in Russia in 1909-1930"; "Graphical Sound - Audio Computing in 1930-s" in the frame of International Conference 100 Years of Russian Avant Garde. Moscow Conservatory.

**2009, October** - Lecture by Andrei Smirnov: "Sound out of Paper. Forgotten experiments in sound art in early 20th century Russia" at the Festiwal Ad Libitum: 4, Warsaw, Centrum Sztuki Wspolczesnej, Zamek Ujazdowski w Warszawie. Polish Music Council Foundation.

**2009, June** - Gestural interfaces: live interaction in Computer Music. Workshop in the framework of Masters program in Sonic Arts and Technologies at Ionian University. Department of Music Studies, Old Fortress, Corfu Greece

**2009, May** - Gestural Interfaces: Voice and Movement. Workshop and presentation in the frame of the Voice Works II workshops related to the voice, sound and movement, curated by Christine De Smedt and Myriam Van Imschoot. Les Ballets C de la B, Ghent, Belgium

**2009, May** - Russian proto-electronic music from 1930-s and beyond. Presentation at eNKa, Berlin.

**2009, May** - THEREMIN SENSORS WORKSHOP at eNKa, Berlin, Germany

**2009** – Keynote lecture “Graphical Sound: technology, music and science” at the Future of Sound Symposium, Goldsmiths, University of London.

**2009** - Lecture: *The Archaeology of Graphical Sound. Russia 1929-1939 and beyond.* Conference "Klangmaschinen zwischen Experiment und Medientechnik" at Kulturfabrik/Hainburg a. d. Donau. IMA Institute of Media Archeology, Austria

**2008** - *Sound out of Paper, Music from out of Nowhere.* The concert-presentation of Russian synthesized tape music from 1930-s. Centre for Music & Technology, Sibelius Academy, Helsinki, Finland

**2008** - *Theremin Sensors Workshop.* CM&T at Sibelius Academy, Helsinki, Finland.

**2008** - *GRAPHICAL SOUND in 1930-s. New media-archeological discoveries.* Presentation at Palais de Tokyo, Paris, France.

**2008** - *Theremin Sensors Workshop* during "Human-Information Workspace", Computer and new music research group CNMRG, Media Lab at Globus Gallery, St. Petersburg.

**2008** - *Theremin Sensors Workshop.* The National Centre for Contemporary Arts, Kaliningrad.

**2008** – *Experimental Music. Live after Death* workshop. Center for Contemporary Arts, Bryansk.

**2008** - *Digital Theremin Workshop* at Club Transmediale, Berlin.

**2007** - *Andrey Smirnov & Guy van Belle: Theremin-Sensors\_Networked Orchestra Workshop*, Munich. Hosted and supported by Department of Arts and Culture of Munich, Organized by A=V /Munich/

**2007** - *Theremin Sensors Workshop* at IMAutomaat #1 artist-in-residency festival at IMA :: Institut für Medienarchäologie, Heimburg, Austria

**2007** - *Theremin-Sensor Construction Workshop* at Riereta, Barcelona. Organized by A=V (Munich). Hosted by RIERETA & TELENOIKA (Barcelona) in collaboration with HANGAR (Barcelona)

**2007** - *Theremin Sensors Workshop* at TESLA, Berlin

**2007** - *Musical applications of eavesdropping techniques workshop and Laser Bugging performance* at the 9th International Festival for New Media Culture ART+COMMUNICATION 2007: SPECTRAL ECOLOGY, Riga, Liepajas Karosta and Aizpute in Latvia.

**2007** - Report on the conference "Espionage Technologies and Art".

**2007** - Lecture at the University of Applied Sciences Hagenberg: *Digital Theremin-Sensors: new approaches and applications for human-machine interaction*. Linz, Austria.

**2007** - *Theremin Sensors Workshop* at the Theremin Center, Moscow

**2006** - Presentation: *Digital Theremin-Sensors: New Approaches and Applications* at STEIM Micro Jamboree, Amsterdam

**2006** - A=V annual FESTIVAL=WORKLAB. *Theremin Sensors Workshop. Sound out of your body motion; Touchless control; Sensing airflow; Playing with water drops*. München, Germany.

**2006** - Lecture at OKNO vzw.: *Forgotten Future: Selected archeologies of art and technology in Russia*. Windowpane Theremin Installation, Laser Bugging Performance. Brussels, Belgium.

**2006** - *Good Vibrations Workshops*. Theremin Center, Moscow.

**2006** - *Good Vibrations Workshops*. Pro Arte Institute, St.Petersburg.

**2005** - Special sound workshop. *Leon Theremin's Good Vibrations. Musical applications of eavesdropping techniques and selected archeologies of music technology*. CM&T at Sibelius Academy. Helsinki, Finland.

**2005** - *Good Vibrations Workshop* at the DOM IM BERG, Graz, Austria.

**2005** - *Masterclass di Tecnologia del Suono Musica Elettronica in Russia: la situazione attuale*. Conservatorio di Musica "Giuseppe Verdi", Milano, Italy.

**2005** - Pro Arte Institute, St.Petersburg. *Acousmatica & Interaction*. Festival and workshops

**2005** - V:NM Festival - Discussion with Andre Smirnov and Daniel Ashwanden from bilderwerfer, moderation Elisabeth Schimana. ESC Gallery, Graz, Austria.

**2005** - Lectures and workshops in the frame of International Contemporary Arts Festival, named for Roslavets and Gabo, Bryansk, Russia.

**2005** - Workshop *Art of Sound and Creativity Workshop + Acousmatic Studies* at the Media Laboratory of the University of Art and Design, Helsinki, Finland.

**2004** - Report «*Proto - Digital Tools in Post - Digital Culture*» in the frame of seminar «Digital 3. International Sound Art Event». Artists' Association Muu, Helsinki, Finland.

**2003** - Workshop at Bregman Electroacoustic Music Studio at Dartmouth College, USA.

**2002** - Workshop: *Music and Gesture: sensors, hardware and software interfaces*. STEIM, Amsterdam.

**2001** - Report at V:NM Festival, Graz, Austria

**2000** - Report «*Music and Gesture: Sensor Technologies in Interactive Music and the Theremin based Space Control Systems*» at ICMC-2000, Berlin, Germany.

**2000** - Lecture: *Music and Gesture: Theremin based Space Control Systems*. Report *Physics - Music - Gesture* at Physics in Action - joint with Physics of Musical Instruments. Electronics and Music. Creating the Future Physical Congress. Brighton, England.

**1999** - *Realta' Musicali in Russia*. Master Class in forma di Seminario. Conservatorio di Musica "Giuseppe Verdi" Milano.

**1999** - *Music and Gesture: theremin based interactive systems*. Workshop at Musical Academy in Basel, Switzerland

**1998** - Presentation of the Theremin Center. Lectures "Russian Futurism and early ideas of Sonic Art" and "Leon Theremin and the history of his inventions". C3 Center for Culture and Communication, Budapest, Hungary.

**1998** - INVENTIONEN 98 Festival, Berlin. SFB -- Haus des Rundfunks, Berlin. Lecture "Proto Musique concrete: Russian Futurism in the 10s and 20s and early ideas of Sonic Art and Art of Noises".

**1998** - Workshop "Music and Gesture: theremin sensor technology" in the frame of Berlin-Paris-Moscow project. PODEWIL, Berlin, Germany.

**1998** - Report "Russian Futurism and early ideas of Sonic Art". Union of Composers, Moscow. Association for Electroacoustic Music, Russia. Conference for 50-th Anniversary of Musicue Concrete.

**1998** - *Theremin Workshop*. Institut fur Elektronische Musik. Hochschule fur Musik und Darstellende Kunst, Graz, Austria.

**1998** - Workshop "Music and Technology" at Ural State Conservatory, Ekaterinburg, Russia.

**1998** - Lecture "Das Theremin, erstes industriell produziertes elektronisches Instrument". Institut fuer Elektroakustik, Experimentelle und Angewandte Musik an der Hochschule fuer Musik und Darstellende Kunst in Wien, Austria.

**1997** - Presentation of works from the Theremin Centre. DIGITALE ' 97, Crossing Borders. Art, Computer and Culture. Cinemathek, Cologne, Germany.

**1997** - Workshop "Music and Technology" at Ural State Conservatory, Ekaterinburg, Russia.

**1996** - Lectures and presentations at University of Central Oklahoma , Edmond , Oklahoma, USA.

**1996** - Lectures and presentations at Oberlin Conservatory , Oberlin , Ohio, USA.

**1996** - Lectures and presentations at University of Illinois , Urbana Champaign , Illinois, USA.

**1996** - Lectures and presentations at Ithaca College of Music , Ithaca , New York, USA.

**1996** - Lectures and presentations at Dartmouth College , Hanover , New Hampshire, USA.

**1996** - Lectures and presentations at Princeton University , Princeton , NJ, USA.

**1996** - Participation in SEAMUS Conference, Birmingham , USA.

**1996** - Lectures and presentations at Berklee College of Music , Boston, Massachusetts, USA.

**1995** - "Moskau - Berlin / Elektroakustische Musik aus Moskau". Report and concert at Berlin Academy of Arts within the framework of the international festival "Moscow-Berlin", Germany.

**1995** - Report and concert of interactive computer music. International conference Artificial intelligence in XXI century in Kaliningrad.

**1995** - Report *Biomusic of Cyberspace. New interactive technologies in music*. Concert of interactive music with demonstration of installation *Virtual Sonic Painting*. The Third Reality Forum, St.-Petersburg, Russia.

**1995** - Production of the International workshop *Music and Technology* with participation of Max Mathews (USA, CCRMA, Stanford Univ.); Jon Appleton (Dartmouth College, USA); Richard Boulanger (USA, Berklee College, Boston); Gary Lee Nelson (USA, Conservatory Oberlin); Sam Magrill (USA, The University of Central Oklahoma); Peter Rothbart (USA, Ithaca College); Ko Umezaki (Japan); Lidia Kavina (Russia); John Puterbaugh (USA, Princeton Univ.); Andrei Smirnov (Theremin Center, Moscow); Vladimir Volkov (Ekaterinburg, Russia); Tatiana Komarova (Ural State Conservatory, Ekaterinburg, Russia).

**1995** - Report at the International conference "Music in the Year 2002. Where are we? And where do we want to go?" Royal Swedish Academy of Music, Stockholm, Sweden

**1994** - The lecture on the history of Russian electroacoustic music and the concert of Russian electroacoustic music at CCRMA, Stanford University, California

**1994** - Coordination and reports at the conference “*Music Technology and Post Modernism in Russia Europe and the Americas*”. International Conference at Bellagio Study and Conference Center, Italy

**1993** - Lectures on the history of Russian electroacoustic music. Concert of Russian electroacoustic Music at Bregman Studio, Dartmouth College, Hanover, New Hampshire, USA

## **SELECTED GRANTS AND AWARDS**

**2003-2008** - Exchange program between the Theremin Center, Moscow and Diapason Gallery, New York. Grant by the Trust for Mutual Understanding.

**1999** - Grant by the Open Society Institute (Soros Foundation) to develop the Theremin Center.

**1998** - Grant by the Open Society Institute to equip the Chet-Nechet Theatre.

**1998** - Grant by the Open Society Institute to equip the Theremin Center.

**1998** - Da-Da-Net prize for the best Internet art resource (the Open Library).

**1997** - Grant by the Open Society Institute to produce experimental spectacle “Iordano Bruno” by I.Terentiev. In collaboration with Alexander Ponomarev and Chet-Nechet Theatre.

**1997** - Grant by the Open Society Institute to develop the Theremin Center.

**1995-1997** - X-Media Project supported by the Soros Center for Contemporary Arts, Moscow.

**1994** - Grant by the IREX, Moscow (International Research & Exchanges Board). Joint project with Dartmouth College (USA), coordinated by Andre Smirnov and Jon Appleton.

**1994** - Ostankino Prize-94. Award for the best mini-drama for the text-sound composition “Госпожа Ленин” (Madam Lenin) based on Velimir Khlebnikov’s poem. In collaboration with the Chet-Nechet Theatre, Moscow.

**1994** - Gran-Prix at MACROFON-94 (Poland) for the spectacle “Zangezi” based on Velimir Khlebnikov’s poetry. In collaboration with the Chet-Nechet Theatre, Moscow.

**1993** - Grant from the Rockefeller Foundation. Joint project with Dartmouth College (USA,) coordinated by Andre Smirnov and Jon Appleton.

**1981-1986** - Prizes at several radio-electronics exhibitions in Moscow for the series of analog synthesizers and digital sound processing tools.

**1982** - The Prize at the Radio-electronic Exhibition, Moscow, 1982 for VC-17 Vocoder.

**1981** - The Silver Medal at the Exhibition of National Achievements, Moscow for the Studio-1 Synthesizer.

## **SELECTED EXHIBITIONS**

**2011, October - 2012, January.** Theremin and Graphical Sound part of the exhibition Red Cavalry: Creation and Power in Soviet Russia between 1917 and 1945 at La Casa Encendida, Madrid, Spain.

**2011, June-July.** Exhibition GENERATION Z - RUSSIAN PIONEERS OF SOUND ART AND MUSICAL TECHNOLOGY IN 1910-1930 at OSA ARCHIVUM, Budapest, Hungary.

**2011, March-May.** Exhibition GENERATION\_Z. Pioneers of Music Technologies in Russia in 1910-30s. Moscow Polytechnic Museum.

**2010, September-December.** Exposition "Son produit par la lumiere et le papier" in the frame of the exhibition "Vois ce que j'entends" at the Centre des arts d'Endhien-les-Bains, France.

**2010, February-April.** GENERATION\_Z exhibition in the Petropavlovskaya Castle, Pro Arte Institute, St.Petersburg, Russia.

**2010, January.** GENERATION\_Z exhibition at the Central House of Painters, Moscow.

**2009, September-October.** GENERATION\_Z exhibition at the 3-rd Moscow Biennale of Contemporary Art. Investment in Art Club, Moscow.

**2008-2009** - *SOUND\_in\_Z* project in the frame of the exhibition "From a Revolution to Another" curated by Jeremy Deller and organized by the Palais de Tokyo, Paris, France

**2008-2009** - Historical instruments from Smirnov's collection at the exhibition "Forgotten Future#1, Magical Sound Machines" at Kulturfabrik/Hainburg. IMA Institute of Media Archeology, Austria.

**2006** - *Shadows II Installation* at Klangturm St. Pölten, NÖ Landesmuseum, Austria.

**2005** - GRAZ MOCKBA GRAZ Exhibition & Workshop at DOM IM BERG, Graz, Austria. Kunst und wissenschaft zwischen freiheit und terror. Mit Theremin Center Moskau, Informationsdesign FH Joanneum, Institut für Elektronische-Musik und Akustik Graz. Andrei Smirnov's Workshop: *Lev Termen - inventor, artist, spy: on the track of a visionary.*

**2002** - Center for Contemporary Arts, Moscow. *The Shadows* interactive installation by Elisabeth Schimana and Andrei Smirnov.

**2002** - *Theremin Park Exposition.* In collaboration with Elisabeth Schimana. Central House of Painters, Moscow.

**1998** - THEREMIN (c)HA(o)US(e). Musical Installation, based on 11 theremins and acoustical feedbacks at Krasnoyarsk Museum for Contemporary Arts in cooperation with ART-Bliia Group. Krasnoyarsk, Siberia, Russia.

## **FESTIVALS PRODUCED BY A. SMIRNOV SINCE 1998**

**2005** - Pro Arte Institute, St.Petersburg. *Acousmatica & Interaction* Festival and workshops .

**2004** - *AlterMedium04* in the frame of ALTERNATIVA 04 Festival.

**2004** - Pro Arte Institute, St.Petersburg. *Acousmatica Festival* .

**2003** - *AlterMedium 03 Festival "Invisible Cities"*. Ural State Conservatory, Ekaterinburg.

**2003** - *AlterMedium 03 Festival "Invisible Cities"*. Cultrural Center DOM, Moscow.

**2002** - *AlterMedium 02 International Festival "Well Tempered Noise"*. AlterMedium, Ekaterinburg.

**2002** - *AlterMedium 02 International Festival "Well Tempered Noise"*. With participation of Jon Appleton, Dave Philips & Ohne, Seppo Gruendler, Elisabeth Schimana, Alien Productions, Andrei Smirnov, Yuri Spitsin, Vera Ivanova, Netochka Nezvanova, Ailet Harpas, Daniel Shorno, Hans Christian Gillie, Rob Mallender, Cultrural Center DOM, Moscow.

**2001** - *AlterMedium 01 International Festival "The Cinema for Ears"*.

**2001** - International Festival "*Actions/Interactions'2001*". Theremin Center presents the program of electroacoustic music, video-art and musical performance from Russia, France, Holland, New Zealand.

**2001** - The Theremin Center and LIGYS Studio, Paris presented "*Actions/Interactions" Electroacoustic Music Program* in the frame of the Moscow Autumn 2001 Festival.

**2000** - International Contemporary Music Festival Moscow Autumn' 2000. The Theremin Center and Moscow Contemporary Music Ensemble present the program of Electroacoustic Music "*Sound Substance Cognition*".

**2000** - *Alternativa Alt2K* International New Music Festival. The Theremin Center presents the international program of Electronic & Computer Music, Videoart & Musical Performance from Russia, Italy, Austria.

**1999** - Theremin Center presents the program of Electroacoustic Music at the *MIDI Alternativa'999* - International New Music Festival

**1998** - Alternativa' 98 International New Music Festival. "*Electronic Atlantida*". Theremin Center presented the program of Electronic & Computer Music, Videoart & Musical Performance.

## **SOFTWARE DEVELOPMENT (In cooperation with Sergey Smirnov).**

**2005-2008** - Programming of Atmega based USB interfaces for *t-sensors*.

**2008** - *Digital Theremin* and *USB-Theremin* programming.

**2005** - *USB-sensor* library for MAX/MSP and PD for the purposes of motion tracking and development of interactive installations and performances.

**2004** - *autoscale* library for MAX/MSP and PD to solve the problem of scaling and tuning of long term installations based of theremin-sensors.

**2003** - *t-sensor* library for MAX/MSP and PD to process and utilize the theremin-sensors control data.

## **HARDWARE DEVELOPMENT**

**2005-2009** - Digital *USB theremin-sensors and related instruments*, based on alternative "direct-control" principle, useful for different kinds of motion capturing systems, monitoring of the air flow variations, mechanical vibrations, changes of electrical capacitances of different conductive medias etc.

**1999-2005** - The series of analog *theremin-sensors*, based on classical theremin heterodyning principle with a newly developed circuitry to produce super sensitive control.

**2004** - *Laser monitoring system*, based on the same principle as the famous "Buran" eavesdropping system, developed by Leon Theremin in 1945 for KGB. Being used as a musical tool, this method gives us unique opportunity to listen to inaudible vibrations in all kinds of reflecting media: membranes, liquids, solid objects, water surfaces, bubbles, plastic bags, piano decks, wine glasses etc. to produce unusual feedbacks, cross-media interferences and interactions.

**1998-2004** - Small series of analog *THEREMINs*.

**1985/2000** - *Brain wave biofeedback system* based on specially developed bio-amplifiers and MAX/MSP algorithms, created for Brain Jazz performance, where performer controls the development of the musical material, by means of mental and emotional state as well as the movement of eyes and mimic of the face.

**1991-1992** - 16-bit digital multi-effects processor MEGAVERB. ROSTEX Company, Moscow

**1989-1990** - Sampling digital delay lines with MIDI synchronization. Private Studio, Moscow

**1990** - Wireless microphones for Stage. Chet-Nechet Theatre, Moscow

**1988** - Percussion - sampler. ROSTEX Company, Moscow.

**1987** - MIDI - sampler. Private Studio, Moscow

**1986** - Percussion Synthesizer (Underground Company, Moscow).

**1983-1986** - Special computer music peripherals for PDP, IBM-compatibles, MSX, Atari ST Computers.

- Multichannel D/A Converter for Computer-based Analog Sound Synthesizer for PDP-11 Computer.

- Noise Sound Synthesizer for Biofeedback System including the software for PDP-11 Computer.

- Low noise portable 4-channel bio-amplifier for EEG biofeedback system.

- Low noise portable bio-amplifier for skin resistance biofeedback system.

- Institute of Psychology, Academy of Sciences, USSR, 1985

**1982-1983** - Experimental sound spatializing system (Audio-Visual Group at Astronautics Memorial Museum, Moscow).

**1982-1989** - Series of digital delay lines. (Underground Company. Since 1989 - MIDITON Company).

**1982** - Series of analog vocoders.

**1982** - Series of analog Synthesizers (Underground Company).

**1980** - Analog studio Synthesizer "System1".

## **SELECTED WORKS**

**2008-2009** – Series of 3D-THEREMIN performances.

**2006** - *SHADOWS II interactive installation*. In collaboration with Elisabeth Schimana at Klangturn, St.Poelten, Austria, 2006

**2005** - *WINDOWPANE THEREMIN INSTALLATION* for laser monitoring system. Premiere: Dom im Berg, Graz, 2005.

**2005** - *LASER BUGING* performance for laser monitoring system. Premiere: Dom im Berg, Graz, 2005.

**2005** - *VETRO - TOUCHLESS*. Interactive installation and performance for theremin sensors and Elena Golovasheva (dance). Premiere: ESC Gallery, Graz, Austria, 2005

**2003** - *THE TRUTH ABOUT DON KIHOT AND SANCHO*. Live computer music and sound design for theatre performance directed by Alexander Ponomarev. OKOLO Theatre, Moscow, 2003.

**2003** - *XYZ for Cordula Boezsce* (flute), theremin sensors and MAX/MSP based interactive system. Premiere: AlterMedium Festival, Ekaterinburg, Russia, 2003.

**2002** - *XOX* - Interactive performance for two composers and two programmers. In collaboration with Sergey Smirnov (programming). Premiere: Moscow, AlterMedium Festival, 2002.

**2002** - *SHADOWS*. Interactive installation. In collaboration with Elisabeth Schimana. Center for Contemporary Arts, Moscow, 2002.

**2001** - *SITTING IN MY CHAIR*. Interactive performance. MAX/MSP/NATO programming and instrumental design in collaboration with Elisabeth Schimana and Yuri Spitsin. Premiere: MUSIKPROTOKOLL Festival, Graz, Austria, 2001.

**2002** - *CORRELATIONS*. Interactive performance for two dancers, two theremin-sensors and MAX/MSP based interactive system. In collaboration with Sergey Smirnov (C++ programming). Premiere: AlteMedium 02 Festival, Moscow, 2002.

**2001** - *SONOGRAMS*. Computer-generated tape. Premiere: Moscow Forum Festival, 2001.

**2001** - *BRAIN GAIME*. Interactive installation for one soloist, one programmer, two assistants, brain-wave biofeedback system, MAX/MSP based interactive computer system. Premiere: Malevitch Festival, Cultural Center DOM, Moscow, 2001.

**2001** - *BRAIN JAZZ*. The series of interactive performances for the soloist, programmer, two assistants, brain-wave biofeedback system and MAX/MSP based interactive computer system. Premiere: Alternativa Festival, Union of Composers, Moscow, 2001.

**2000** - *SONOCHRONOTOP*. Series of Interactive performances for Dmitry Kalinin (schakuhachi flute), theremin-sensors and MAX/MSP based interactive system. In collaboration with Sergey Smirnov. Premiere: Alternativa Alt2K Festival, Union of Composers, Moscow, 2000.

**1999** - *SHAMAN AND SNOWMAIDEN*. Live electronic music and sound design for theatre performances directed by Alexander Ponomarev, based on "Snowmaiden" by N.Ostrovsky and "Snezhimochka" by V.Khlebnikov. Premiere: RAMT Theatre & Chet-Nechet Theatre, Moscow, 1999.

**1998** - *THEREMIN (c)HA(o)US(e)* Installation for 11 theremins at The Museum of Contemporary Arts, Krasnoyarsk. In collaboration with Michael Lobazov and Art-Blia Group. Krasnoyarsk, Siberia, 1998.

**1997** - *CURVED MIRRORS*. The cycle of interactive music and improvisations. Together with Yuri Spitsin (power glove, MAX programming) and Konstantin Adjer (klarinet, sax, trumpet). Premiere: Alternativa Festival, Union of Composers, Moscow, 1997.

**1996** - *SLEEPER*. Sound design and music for radio drama, based on stories by Ray Bradbury. Artistic Director - Alexander Ponomarev. Premiere: Radio Russia, 1996.

**1995** - *VIRTUAL SONIC SCULPTURES*. Interactive Music and Installations in collaboration with Yuri Spitsin in the frame of international symposium Sculpture in the Park, Pereslavl Zalesky City, August, 1995.

**1995** - *VIRTUAL SONIC PAINTING*. Multimedia performance in collaboration with Yuri Spitsin, Andrey Demidenko, painter Nikolay Shirokov, Premiere: The 3<sup>rd</sup> Reality Forum, St.Petersburg, 1995

**1993** - *MADAM LENIN* by Velimir Khlebnikov. Sound design for electroacoustic version. Premiere: Moscow, 1993. Published on CD in 1995.

**1993** - *ZANGEZI* - Radio Version, Premiere: Radio Russia, Moscow, 1993.

**1992** - *ZANGEZI* by Velimir Khlebnikov. Music and sound design for theatre performances directed by Alexander Ponomarev. Chet-Nechet Theatre, Moscow, 1992.

**1991** - *ETUALE SCHOOL* by Nikolai Evreinov. Music and sound design theatre performances directed by Alexander Ponomarev. Chet-Nechet Theatre, Moscow, 1991.

**1991** - *GOD PERHAPS AROUND* by A.Vedensky. Music and sound design for the theatre performances directed by Alexander Ponomarev. Chet-Nechet Theatre, Moscow, 1991.

**1990** - *DON JUAN* by Vladimir Kazakov. Music and sound design for the theatre performances directed by Alexander Ponomarev. Chet-Nechet Theatre, Moscow, 1990.

**1989** - *KUPRIANOV AND NATASHA* by Alexander Vedensky. Music and sound design for the theatre performances directed by Alexander Ponomarev. Chet-Nechet Theatre, Moscow, 1989.

**1989** - *ELISABETHA BAM* by Daniel Charms. Music and sound design for the theatre performances directed by Alexander Ponomarev. Chet-Nechet Theatre, Moscow, 1989.

**1987** - *NASTOJASHEYE* (The Present) by Velimir Khlebnikov. Music and sound design for theatre performances, directed by Alexander Ponomarev. Chet-Nechet Theatre, Moscow, 1987.

**1987** - *MIRIAM* by V.Volkov. Music for theatre performances directed by Alexander Gorban. Theatre Workshops, Moscow, 1987.

**1982** - Electronic metronomes part for the 1-st performance of "Lebenslauf" für 4 Metronome, 3 Schiagzeuger und Klavier by Alfred Schnittke. Premiere: House of Painters, Moscow, 1982.

**1980-1985** - Early electronic music works. Private studio.

## **SELECTED RECORDINGS**

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2. *Touchless*. International Theremin Orchestra. Kunstradio Edition, LC 566, 1998
3. *Madam Lenin*. Electroacoustic Music from the Theremin Center. Label: Solyd Records, 1995
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3. Smirnov A., *Synthesized Voices of the Revolutionary Utopia*. Collection 'Electrified Voices. Media-Technical, Socio-Historical and Culturological Aspects of Voice Transmission.' Konstanz, 2011. In preparation for publication.
4. Smirnov A., Pchelkina L., *Russian Pioneers of Sound Art in the 1920s. Catalogue of the exhibition 'Red Cavalry: Creation and Power in Soviet Russia between 1917 and 1945'*. Rosa Ferré Ed. La Casa Encendida, Madrid, 2011, p. 210-232. (English and Spanish).
5. Smirnov A., Pchelkina L., *GENERATION Z*. Booklet of the Generation Z exhibition. OSA Archivum, Budapest, 2011. (English and Hungarian).
6. Smirnov A., *Boris Yankovsky: Leben im Klangspektrum. Gezeichneter Klang und Klangsynthese in der Sowjetunion der 30er Jahre*. Klangmaschinen zwischen Experiment und Medientechnik. Transcript Verlag, Bielefeld. Austria, 2010, pp. 97-120. (German).
7. Smirnov A., Boykett T., *Notation und visuelle Musik*. Klangmaschinen zwischen Experiment und Medientechnik. Transcript Verlag, Bielefeld. Austria, 2010, pp. 121-126. (German)
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11. Smirnov A., The series of chapters: *Touchless Music. Theremin*. (pp. 134-136); *Dancing in Tune. Terpsitone*. (pp. 137-139); *Switch on, Bob. Moog Modular Synthesizer*. (pp. 176-178); *In the Beginning was the Lunch Break. Minimoog D*. (pp. 179-181); *Rhythm' n' Light. Rhythmicon*. (pp. 188-190). In the book "Zauberhafte Klangmaschinen. Von der Sprechmaschine bis zur Soundkarte". Schott Music GmbH & Co. KG, Mainz, 2008 (in both English and German).
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Collection Spectropia. Illuminating investigations in the electromagnetic spectrum. Acoustic Spaces, issue #7, RIXC, 2008.
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