Curriculum Vitae

Zelimir Djurcic

Argonne National Laboratory
9700 S. Cass Avenue
HEP 362
Argonne, IL 60439
(email) zdjurcic@anl.gov, zdjurcic@gmail.com

(w) 630-252-7549
(h) 630-338-9412
(fax) 630-252-5076

A. EDUCATION

Ph.D. Physics
The University of Alabama, Tuscaloosa, November 2004.
Advisor: Professor Andreas Piepke.
Thesis Title: "Measurement of Reactor Anti-neutrinos at KamLAND: Preparation And Analysis".

M.S. Physics
The University of Alabama, Tuscaloosa, April 2002.
Advisor: Professor Andreas Piepke.
Thesis Title: "Measurement of Extremely Low Radioactivity Levels in KamLAND Liquid Scintillator".

B.S. Physics, University of Novi Sad, June 1996
Advisor: Professor Istvan Bikit.
Thesis Title: "New gamma transition in the decay of ^{137}Cs".

CURRENT EMPLOYMENT

Staff Physicist
Argonne National Laboratory, High Energy Physics Division
November 2009-present.

Group Leader
November 2014 - present.
Job Description:
Neutrino Group Leader: Contributes to the understanding and advancement of elementary particle physics by conceiving and executing experimental research project, and reporting the results.

Contributes to the technology of elementary particle physics and to the projects and facilities of the Argonne High Energy Physics effort, in particular related to the field of Experimental Neutrino Physics. To that end, develops new detector technologies for High Energy Physics Experiments, assembles prototype detectors, tests them in a particle beam or with cosmic rays, and analyses the data. Develops theoretical models to provide a deeper understanding of functionality of a given technology. As the group leader of the neutrino group, coordinates the effort within the group. In more details:

- Leads in the conception of innovative and high quality experimental research projects which address basic research questions in development of new instruments or capabilities for research. Manages and coordinates the projects in the neutrino group: this may include aspects of design, construction, operation, data taking, analysis, and publication and presentation of results.
- Analyzes data, adopting or inventing techniques as required, relates results to theoretical framework, and publishes in referred journals.
- Makes presentations at meetings, conferences, symposia, and seminars.
- Plans and executes project tasks together with other physicists and support personnel, both at Argonne and elsewhere; specifying and ordering equipment and material, and design of mechanical, electronic, and software aspects.
- Runs experiment shifts to check out equipment and collect data.
- Supervises and aids to the growth of less experienced physicists and support personnel.
- Oversees the experimental proposals, progress reports, Filed Task Proposals, etc. of the neutrino group; makes presentations to experimental program committees, the funding agency, and various reviews.
- Participate in setting the strategic direction for the Division.

Physicist
July 2013-current.
Job Description:

- Lead of JUNO effort at ANL 2014-2015, including development of calibration systems and the detector design.
- Lead LBNE Research and Development Group 2013-2015. Prioritized R&D goals, and helped LBNE to expand into international DUNE collaboration.
- Brought expertise in the short-baseline accelerator physics and light detection into participation the Short-Baseline Neutrino Effort at Fermilab.
- For NOvA Experiment developed analyses of beam electron neutrino events and neutral current π^o's, end executed these with two postdocs.
- Mentored postdocs, and led graduate and undergraduate students to thesis completion.

Assistant Physicist
November 2009-July 2013.
Job Description:

- Engaged in broad areas of research, development, and analysis; Directly perform creative and intellectual work in scientific discovery and technological innovation and assessment or programs and/or user facilities; Enable scientific discovery and technological innovation/assessment in programs and/or within user facilities by contributing knowledge, skills, and expertise within a field of science or engineering.
- Double Chooz: Calibration Group co-convener and Double Chooz US-analysis co-coordinator. Mentoring PhD student on Double Chooz research thesis.
- NOvA: Studied fluxes and expected neutrino event rates in NOvA near and far detectors with different neutrino beams (NuMI and Booster neutrino beams at Fermilab); Incorporated Fermilab's Booster neutrino beam flux simulation into NOvA analysis framework; Started developing ideas on how to use the near detector to predict neutrino spectrum in the far detector of NOvA experiment;
- LBNE: Primary Investigator in LBNE photo-detection calibration and electronics design effort. Developing schemes for use of Nd:YAG laser in calibration of TPC (and potentially) photon-detection system. Consider tests in CAPTAIN, in collaboration with LANL group.
- R&D: Lead Investigator in Development of Wireless Data and Power Transfer Techniques for Large Instrumentation System LDRD R&D project. In addition plan tests of LAPPD photo-sensors in a small water/liquid-scintillator detector at ANL. Potential use in Daya Bay II and EXO.
- Other activities: proposal reviewer (DOEs CDRD, ADR, and SBIR proposals), journal referee (Phys. Lett. B, Rev.Sci.Instrum.), conference/workshop organization, participating in meetings and activities shaping the future of our field (IF meetings, Snowmass meetings, etc.), mentoring students and postdocs, giving talks at conferences/workshops.

WORK HISTORY

Postdoctoral Fellow
Physics Department, Columbia University
November 2004 - November 2009.

- Leader of the NuMI (Neutrinos from Main Injector) analysis group in the MiniBooNE experiment.
- Demonstrated the off-axis beam concept using the NuMI beam and MiniBooNE detector. This concept will be used in current and future experimental searches for CP violation in US and Japan.

- Performed an electron-neutrino calibration technique for MiniBooNE detector based on the use of neutrinos from the NuMI beam-line at Fermilab by isolating electron-type neutrinos.
- Evaluated sterile neutrino mixing models in light of MiniBooNE electron neutrino and antineutrino data from the Booster and NuMI beam-lines (with G. Karagiorgi et. al.).
- Improved the sensitivity of the MiniBooNE experiment by optimizing particle identification techniques.
- Key role in background characterization for the MiniBooNE $\nu_\mu \rightarrow \nu_e$ oscillation search. Measured pi^0 and dirt backgrounds in oscillation search.
- Instrumental in the MiniBooNE data analysis: code improvements and verification, optimization of event selection cuts and experimental sensitivity.
- Led a team of physicists quantifying uncertainties in the anti-neutrino production at nuclear reactors. This will be important input to measurements of the neutrino mixing angle θ_{13} in future reactor neutrino oscillation experiments and monitoring of fuel consumption and power production in nuclear reactors.
- Designed, constructed, and operated an experimental setup characterizing detector components for the veto system of the Double Chooz reactor neutrino experiment.
- Determined the anti-neutrino background rates in Braidwood reactor neutrino project.
- Selection and preparation of photo-multiplier tubes and plastic scintillator detectors for muon range detector of SciBOONE experiment.
- Conducted the feasibility study of the LOREX project; a geochemical solar neutrino detection experiment with an unprecedented low energy threshold of 52 keV.

Research Assistant
Department of Physics, University of Alabama
August 1999 - November 2004.

- Analyzed KamLAND anti-neutrino data and demonstrated a spectral distortion in the observed spectrum, providing clean evidence for the existence of neutrino oscillations.
- Invented a novel technique for ultra-sensitive determination of trace elements in organic materials, used to determine extremely low radioactivity levels in KamLAND liquid scintillator.
- Construction of an ultra-low background counting facility.
- Pioneered techniques for purifying organic liquid detection materials, used in the detection of ^7Be solar neutrinos in the KamLAND experiment.

- Contributed to research and development of new experiment, called EXO (Enriched Xenon Observatory), to measure absolute mass of neutrino through a search of the very rare double beta decay of ^{136}Xe.
- Selected radio-pure materials to build future ultra low-background detectors, used in a current prototype of EXO experiment aiming to measure neutrino-less double beta decay.

Research and Teaching Assistant
Nuclear Physics Laboratory, University of Novi Sad
September 1996 - August 1999.

- Studied rare nuclear physics processes by means of gamma-spectroscopy.
- Optimized a low-background Ge detector for measurements of double beta decay processes.
- Improved a method for measurement of radon in agricultural soil.
- Monitored the radioactive contamination of soil, water, food, and agricultural products in the river Danube region of Vojvodina.

RESEARCH INTERESTS

- Neutrino Physics: measurement of neutrino oscillation parameters, neutrino interaction cross-sections, studies of CP-violation with neutrinos, neutrino-less double beta decay experiments, absolute neutrino mass measurements, solar neutrino physics, sterile neutrinos and neutrino phenomenology, reactor monitoring with anti-neutrinos.
- Non-neutrino tests of Standard Model: proton decay.
- Astrophysics: relic neutrinos, cosmic ray and gamma ray astronomy, dark matter searches.
- New Techniques: investigation of novel detection materials and techniques in particle physics.

AWARDS

Los Alamos National Laboratory Director's Post-doctoral Fellowship, 2009. Violin Family Foundation Research and Travel Support Award, 2008. The University of Alabama PhD Scholarship 1999-2004. Multiple Travel Grants at the University of Alabama 2000-2004.

B. PROFESSIONAL ACTIVITIES

PROFESSIONAL MEMBERSHIPS

1999 - present, American Physical Society.
2010 - present, Sigma Xi, honorary scientific research society, nominated and promoted to Full Membership in 2010.

SCIENTIFIC COLLABORATIONS

SBN, 2014 - present.
JUNO, 2014 - 2015.
LBNE/DUNE, 2010 - present.
NOvA, 2010 - present.
Double Chooz, 2006 - 2014.
MiniBooNE/SciBooNE, 2004 - 2014.
EXO, 2000-2005.
KamLAND, 1999-2005.

STUDENTS AND POSTDOC MENTORING

2013 - 2015, mentored Sarah Mancina, an undergraduate student from U of Chicago: worked on NOvA and DUNE; defended undergraduate thesis.
2012 - present, mentoring Guang Yang, a graduate student recruited from IIT: performing PhD thesis work on Double Chooz experiment.
2012 - 2015, co-mentored Ioana Anghel, a post-doctoral fellow working on NOvA.
2012 - 2015, mentored Himansu Sahoo, a post-doctoral fellow working on NOvA, detector R&D, and LBNE.
2012, co-mentored Subhojit Sarkar (with Marcel Demarteau), an advanced undergraduate student: performing a simulation of a LAPPD-based detector.
2012, mentored REU student Jacob Zettlemoyer (work on Double Chooz).
2012, mentored REU student Elianna Bier (work on NOvA).
2011, mentored REU student Vijay Jampani (work on Double Chooz). 2010, mentored SULI student Ayesha Rizvi (work on Double Chooz). 2007, mentored Columbia graduate student Matt Toups.
2007, mentored REU student Lynda Ikejimba.

PANEL PARTICIPATION

- DOE HEP 2016 University Comparative Review Panel.
- Panel Discussion: Neutrinos and Society, Intensity Frontier Workshop, 25-27 April 2013, Argonne National Laboratory.

CONFERENCE AND WORKSHOP ORGANIZATION

- Co-convenor of the Small/Medium size Neutrino Projects Working Group at the WINP (Workshop on Intermediate Neutrino Program, Feb. 4-6, 2015 at Brookhaven.
- Physics Session Chair: Argonne Undergraduate Research Symposium, November 7, 2014.
- Organizer and Convenor of LBNE R&D Workshop, March 20-22, 2014.
- Organizing and convening the Accelerator-Based Neutrino Physics part of the IceCube Particle Astrophysics Symposium (IPA2013) in Madison, Wisconsin May 13-15, 2013.
- Session Chair at April Meeting of the American Physical Society, Denver, April 13-16 (2013).
- Local Organizing Committee at Instrumentation Frontier Community Meeting (CPAD) at Argonne National Laboratory, January 9-11, 2013.
- Scientific Committee and Session Chair at Advances in Neutrino Technology Philadelphia, October 10-12, 2011.
- Local Organizing Committee and Session Chair at Short-Baseline Neutrino Workshop at Fermilab, May 12-14, 2011.
- Session Chair at April Meeting of the American Physical Society, St. Louis, April 15 (2008).

PROPOSAL REVIEWS AND JOURNAL REFEREE

- Subject Matter Expert reviewer of Laboratory-Directed Research and Development proposals at Argonne National Laboratory.
- Proposal reviewer of DOE Collider Detector Research and Development Program (CDRD).
- Proposal reviewer of DOE Advanced Detector Research Program (ADR).
- Proposal reviewer of DOE SBIR Program.
- Journal Referee for Physics Letters B.

- Journal Referee for Review of Scientific Instruments.
- Journal Referee for Physical Review Letters

COMMITTEES AND SERVICE WORK

- ANL Physics Colloquium Committee 2014 - 2015.
- ANL HEP Strategic Task Force 2014.
- ANL HEP Divison Seminar Committee member 2013 - 2015.
- ANL Collaboration Cafe Committee to enhance appreciation for and understanding of Argonne management and operations efforts among the scientific staff, and vice versa, as well as fostering professional network connections.
- ANL HEP Search Committee member for an Assistant Physicist position in the ATLAS group and within Intensity Frontier Program.
- ANL HEP Search Committee member for an Engineering Candidate for Electronics Group.
- Various publication writing and review committee duties within current collaborations.
- Various Post-doctoral Search Committees at ANL.
- Writing Recommendation Letters for younger colleagues applying for fellowships and job positions.

MANAGEMENT TRAINING

- Evaluating and Discussing Performance Appraisals, 9/1/2014
- Alan Aida Workshop on Communicating Science, 12/11-12/14, 2014.
- Supervisor Boot Camp: 1/20-21 and 2/17-18/15, 2015.
- Strategic Laboratory Leadership Program, University of Chicago Business School, April - November 2015.

TEACHING EXPERIENCE

2005, Organized and lectured in MiniBooNE summer student lecture series at Fermilab.
2002-2004, Substituted Physics 101 (General Physics) and Physics 491 (Advanced Laboratory) lectures multiple times, University of Alabama.
1999, Teaching Assistant at University of Alabama, Physics Lab 101/102.
1996-1999, Teaching Assistant at University of Novi Sad, Physics Lab for students of Medicine.

HONORARY/VISITING LECTURER

2004 (April) and 2005 (April), Lectured on modern Particle Physics results at the University of Novi Sad and the University of Belgrade as Invited Guest Lecturer. The visit was sponsored by the Brain Gain Program of the World University Service (European Community supported program).

VISITING SCHOLAR

ICFA (International Committee for Future Accelerators) Summer School, Istanbul, Turkey, 2005.
V School on Non-Accelerator Particle Astrophysics, Trieste, Italy, 1998.
CERN School of Computing, Prague, Czech Republic, 1997.

C. PUBLICATIONS, PRESENTATIONS, AND OTHER EVIDENCE OF ACHIEVEMENTS

LIST OF REFEREED PUBLICATIONS

- M. Bass, M. Bishai, D. Cherdack, M. Diwan, Z. Djurcic *et al.*, "Baseline Optimization for the measurement of CP-violation, mass hierarchy, and theta-23 octant in a long-baseline neutrino oscillation experiment ," Phys. Rev. D **91**, 052015 (Published 19 March 2015).
- P. De Lurgio, Z. Djurcic, G. Drake, R. Hashemian, A. Kreps, M. Oberling, T. Pearson, H. Sahoo, "A prototype of wireless power and data acquisition system for large detectors ," Nuclear Instruments and Methods in Physics Research A 785 (2015) 99-104. (http://dx.doi.org/10.1016/j.nima.2015.03.002).
- G. Keefer *et al.* [KamLAND Collaboration], "Laboratory Studies on the Removal of Radon-Born Lead from KamLAND?s Organic Liquid Scintillator ," arXiv:1312.0977 [physics.ins-det].
- Y. Abe *et al.* [Double Chooz Collaboration], "Improved measurements of the neutrino mixing angle θ_{13} with the Double Chooz detector ," arXiv:1406.7763 [hep-ex].
- Y. Abe et al. [Double Chooz Collaboration], "Background-independent measurement of θ_{13} in Double Chooz ," Physics Letters B, **735**, 30 July 2014, Pages 51-56, arXiv:1401.5981 [hep-ex].
- Y. Abe *et al.* [Double Chooz Collaboration], "Precision Muon Reconstruction in Double Chooz ," arXiv:1405.6227 [physics.ins-det].
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Using L/E Oscillation Probability Distributions ," arXiv:1407.3304 [hep-ex].
- Y. Abe ıet al., "Ortho-positronium observation in the Double Chooz Experiment ," arXiv:1407.6913 [physics.ins-det].
- A. A. Aguilar-Arevalo et al. [MiniBooNE Collaboration], "Measurement of the Antineutrino Neutral-Current Elastic Differential Cross Section ," , submitted to Phys. Rev. D, arXiv:1309.7257 [hep-ex].
- A. A. Aguilar-Arevalo et al. [MiniBooNE Collaboration], "Improved Search for $\bar{\nu}_\mu \to \bar{\nu}_e$ Oscillations in the MiniBooNE experiment," Phys. Rev. Lett. **110**, 161801 (2013), arXiv:1303.2588 [hep-ex].
- M. K. Pavicevic, F. Bosch, G. Amthauer, I. Anicin, B. Boev, W. Bruchle, V. Cvetkovic and Z. Djurcic *et al.*, "Status and new data of the geochemical determination of the p p-neutrino flux by LOREX," Adv. High Energy Phys. 2012, 274614 (2012).

- Y. Abe et al. [Double Chooz Collaboration], "First Measurement of θ_{13} from Delayed Neutron Capture on Hydrogen in the Double Chooz Experiment," arXiv:1301.2948, submitted to Phys. Rev. Lett. (2013).
- A. A. Aguilar-Arevalo et al. [MiniBooNE Collaboration], "First Measurement of the Muon Anti-Neutrino Double-Differential Charged Current Quasi-Elastic Cross Section", arXiv:1301.7067 (submitted to Phys. Rev. D).
- Y. Abe *et al.* [Double Chooz Collaboration], "Direct Measurement of Backgrounds using Reactor-Off Data in Double Chooz," Phys. Rev. D **87**, 011102 (2013), arXiv:1210.3748.
- A. Bungau *et al.*, "An Electron Antineutrino Disappearance Search Using High-Rate Li-8 Production and Decay," Phys. Rev. Lett. **109**, 141802 (2012), arXiv:1205.4419.
- Y. Abe *et al.* [Double Chooz Collaboration], "First Test of Lorentz Violation with a Reactor-based Antineutrino Experiment," Phys. Rev. D **86**, 112009 (2012), arXiv:1209.5810.
- Y. Abe *et al.*, "Reactor electron antineutrino disappearance in the Double Chooz experiment, " Phys. Rev. D **86**, 052008 (2012), arXiv:1207.6632.
- G. Cheng *et al.* [SciBooNE and MiniBooNE Collaborations], "Dual baseline search for muon antineutrino disappearance at $0.1eV^2 < \Delta m^2 < 100eV^2$," Phys. Rev. D **86**, 052009 (2012), arXiv:1208.0322.
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "A Combined $\nu_\mu \to \nu_e$ and $\bar{\nu}_\mu \to \bar{\nu}_e$ Oscillation Analysis of the MiniBooNE Excesses ", arXiv:1207.4809 (submitted to Phys. Rev. Lett.).
- Y. Abe *et al.* [Double Chooz Collaboration], "Indication for the disappearance of reactor electron antineutrinos in the Double Chooz experiment," Phys. Rev. Lett. **108**, 131801 (2012), arXiv:1112.6353.
- C. L. Jones *et al.*, "Reactor Simulation for Antineutrino Experiments using DRAGON and MURE," Phys. Rev. D *86*, 012001 (2012), arXiv:1109.5379 [nucl-ex].
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Test of Lorentz and CPT violation with Short Baseline Neutrino Oscillation Excesses," arXiv:1109.3480 [hep-ex] (submitted to Phys. Rev. D).
- N. Ackerman *et al.* "Observation of Two-Neutrino Double-Beta Decay in Xe-136 with EXO-200," Phys. Rev. Lett. **107**, 212501 (2011), arXiv:1108.4193 [nucl-ex].
- I. V. Anicin *et al.* "On the possibility to simultaneously determine the long-term average fluxes of solar p p-neutrinos and cosmic ray muons," Mod. Phys. Lett. A **26**, 1267 (2011).
- K. B. M. Mahn *et al.* [SciBooNE and MiniBooNE Collaborations], "Dual baseline search for muon neutrino disappearance at $0.5eV^2 < \Delta m^2 < 40eV^2$," Phys. Rev. D **85**, 032007 (2012), arXiv:1106.5685 [hep-ex], FERMILAB-PUB-11-304-E(2011).

- G. Cheng *et al.* [SciBooNE Collaboration], "Measurement of K^+ production cross section by 8 GeV protons using high energy neutrino interactions in the SciBooNE detector," Phys. Rev. D **84**, 012009 (2011), arXiv:1105.2871 [hep-ex].

- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Measurement of the neutrino component of an anti-neutrino beam observed by a non-magnetized detector," Phys. Rev. D **84**, 072005 (2011) [arXiv:1102.1964 [hep-ex].

- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Measurement of Neutrino-induced Charged-Current Charged Pion Production Cross Sections on Mineral Oil at $E_\nu \sim 1$ GeV," Phys. Rev. D **83**, 052007 (2011), arXiv:1011.3572 [hep-ex].

- Y. Nakajima *et al.* [SciBooNE Collaboration], "Measurement of inclusive charged current interactions on carbon in a few-GeV neutrino beam," submitted to Phys. Rev. D (2010), arXiv:1011.2131 [hep-ex].

- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Measurement of ν_μ-induced charged-current neutral pion production cross sections on mineral oil at $E_\nu \in 0.5 - 2.0$ GeV," submitted to Phys. Rev. D (2010), arXiv:1010.3264 [hep-ex].

- J. Alonso *et al.*, "A Study of Detector Configurations for the DUSEL CP Violation Searches Combining LBNE and DAEδALUS ," submitted to Phys. Rev. D (2010), arXiv:1008.4967 [hep-ex].

- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Measurement of the Neutrino Neutral-Current Elastic Differential Cross Section," submitted to Phys. Rev. D (2010), arXiv:1007.4730.

- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Event Excess in the MiniBooNE Search for $\bar{\nu}_\mu \to \bar{\nu}_e$ Oscillations," Phys. Rev. Lett. **105**, 181801 (2010), arXiv:1007.1150 (15 citations in SPIRES).

- M. K. Pavicevic, F. Bosch, G. Amthauer, I. Anicin, B. Boev, W. Bruchle, Z. Djurcic, T. Feastermann, W. F. Henning, R. Jelenkovic, V. Pejovic, "New data for the geochemical determination of the solar pp-neutrino flux by means of lorandite mineral," Nucl. Instrum. Meth. A **621**, 278 (2010).

- J. Alonso *et al.*, "Expression of Interest for a Novel Search for CP Violation in the Neutrino Sector: DAEdALUS," arXiv:1006.0260 [phys.ins-det] (2 citations in SPIRES).

- Y. Kurimoto *et al.* [SciBooNE Collaboration], "Improved measurement of neutral current coherent π^0 production on carbon in a few-GeV neutrino beam," Phys. Rev. D **81**, 111102 (2010), arXiv:1005.0059 [hep-ex] (3 citations in SPIRES).

- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "First Measurement of the Muon Neutrino Charged Current Quasielastic Double Differential Cross Section," Phys. Rev. D **81**, 092005 (2010), arXiv:1002.2680 (10 citations in SPIRES).

- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Measurement of ν_μ and $\bar{\nu}_\mu$ induced neutral current single π^0 production cross sections on mineral oil at $E_\nu \sim O$ (1 GeV)," Phys. Rev. D **81**, 013005 (2010), arXiv:0911.2063 (10 citations in SPIRES).
- Y. Kurimoto *et al.* [SciBooNE Collaboration], "Measurement of inclusive neutral current π^0 production on carbon in a few-GeV neutrino beam," Phys. Rev. D **81**, 033004 (2010), arXiv:0910.5768 (6 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "A Search for Core-Collapse Supernovae using the MiniBooNE Neutrino Detector," Phys. Rev. D **81**, 032001 (2010), arXiv:0910.3182 (1 citation in SPIRES).
- I. Stancu *et al.*, "A Letter of Intent to Build a MiniBooNE Near Detector: BooNE," FERMILAB-LOI-2009-02 (2009), arXiv:0910.2698 [hep-ex] (5 citations in SPIRES).
- G. Karagiorgi, Z. Djurcic, J. M. Conrad, M. H. Shaevitz and M. Sorel, "Viability of $\Delta m^2 \sim 1$ eV^2 sterile neutrino mixing models in light of MiniBooNE electron neutrino and antineutrino data from the Booster and NuMI beamlines," Phys. Rev. D **80**, 073001 (2009), arXiv:0906.1997 (22 citations in SPIRES).
- T. Adams *et al.*, "Renaissance of the $\sim$1 TeV Fixed-Target Program," Int. J. Mod. Phys. A **25**, 777 (2010), arXiv:0905.3004 [hep-ex] (3 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Measurement of the ν_μ charged current π^+ to quasi-elastic cross section ratio on mineral oil in a 0.8 GeV neutrino beam," Phys. Rev. Lett. **103**, 081801 (2009), arXiv:0904.3159 (24 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "A Search for Electron Antineutrino Appearance at the $\Delta m^2 \sim 1$ eV^2 Scale," Phys. Rev. Lett. **103**, 111801 (2009), arXiv:0904.1958 (49 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "A search for muon neutrino and antineutrino disappearance in MiniBooNE," Phys. Rev. Lett. **103**, 061802 (2009), arXiv:0903.2465 (18 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Unexplained Excess of Electron-Like Events From a 1-GeV Neutrino Beam," Phys. Rev. Lett. **102**, 101802 (2009), arXiv:0812.2443 (63 citations in SPIRES).
- K. Hiraide *et al.* [SciBooNE Collaboration], "Search for Charged Current Coherent Pion Production on Carbon in a Few-GeV Neutrino Beam," Phys. Rev. D **78**, 112004 (2008), arXiv:0811.0369 (42 citations in SPIRES).
- P. Adamson *et al.*, "Measurement of ν_μ and ν_e Events in an Off-Axis Horn-Focused Neutrino Beam," Phys. Rev. Lett. **102**, 211801 (2009), arXiv:0809.2447 (11 citations in SPIRES).
- Z. Djurcic *et al.*, "Uncertainties in the Anti-neutrino Production at Nuclear Reactors," J. Phys. G: Nucl. Part. Phys. **36**, 045002 (2009), arXiv:0808.0747 (2 citations in SPIRES).

- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "The MiniBooNE Detector," Nucl. Instrum. Meth. A **599**, 28 (2009), arXiv:0806.4201 [hep-ex] (42 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "The Neutrino Flux prediction at MiniBooNE," Phys. Rev. D **79**, 072002 (2009), arXiv:0806.1449 (58 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Compatibility of high-Δm^2 ν_e and $\bar{\nu}_e$ neutrino oscillation searches," Phys. Rev. D **78**, 012007 (2008), arXiv:0805.1764 (16 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "First Observation of Coherent π^0 Production in Neutrino Nucleus Interactions with $E_\nu < 2$ GeV," Phys. Lett. **B664**, 41 (2008), arXiv:0803.3423 (60 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Constraining Muon Internal Bremsstrahlung as a Contribution to the MiniBooNE Low Energy Excess," arXiv:0710.3897 (2007) (3 citations in SPIRES).
- D. S. Leonard *et al.*, "Systematic study of trace radioactive impurities in candidate construction materials for EXO-200," Nucl. Instrum. Meth. A **591**, 490 (2008), arXiv:0709.4524 (10 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "Measurement of muon neutrino quasi-elastic scattering on carbon," Phys. Rev. Lett. **100**, 032301 (2008), arXiv:0706.0926 (99 citations in SPIRES).
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], "A Search for electron neutrino appearance at the $\Delta m^2 \sim 1\text{eV}^2$ scale," Phys. Rev. Lett. **98**, 231801 (2007), arXiv:0704.1500 (286 citations in SPIRES).
- T. Araki *et al.* [KamLAND Collaboration], "Search for the invisible decay of neutrons with KamLAND," Phys. Rev. Lett. **96**, 101802 (2006), arXiv:hep-ex/0512059 (4 citation in SPIRES).
- T. Araki *et al.* [KamLAND Collaboration], "Experimental investigation of geologically produced antineutrinos with KamLAND," Nature **436**, 499 (2005) (66 citations in SPIRES).
- T. Araki *et al.* [KamLAND Collaboration], "Measurement of neutrino oscillation with KamLAND: Evidence of spectral distortion," Phys. Rev. Lett. **94**, 081801 (2005), arXiv:hep-ex/0406035 (834 citations in SPIRES).
- K. Eguchi *et al.* [KamLAND Collaboration], "A high sensitivity search for anti-nu(e)'s from the sun and other sources at KamLAND," Phys. Rev. Lett. **92**, 071301 (2004), arXiv:hep-ex/0310047 (100 citations in SPIRES).
- K. Wamba *et al.* [EXO Collaboration], "Mobility of thorium ions in liquid xenon," Nucl. Instrum. Meth. A **555**, 205 (2005), arXiv:cond-mat/0503560 (2 citations in SCOPUS).

- E. Conti *et al.* [EXO Collaboration], ”Correlated fluctuations between luminescence and ionization in liquid xenon,” Phys. Rev. B **68**, 054201 (2003), arXiv:hep-ex/0303008 (24 citations in SPIRES).
- K. Eguchi *et al.* [KamLAND Collaboration], ”First results from KamLAND: Evidence for reactor anti-neutrino disappearance,” Phys. Rev. Lett. **90**, 021802 (2003), arXiv:hep-ex/0212021 (1740 citations in SPIRES).
- Z. Djurcic *et al.*, ”Novel technique for ultra-sensitive determination of trace elements in organic materials,” Nucl. Instrum. Meth. A **507**, 680 (2003), arXiv:hep-ex/0210038 (3 citations in SPIRES).
- I. Bikit *et al.*, ”Detection Limits of the NaI(Tl) shielded HPGe spectrometer,” Nucl. Instrum. Meth. A **421**, 266 (1999) (2 citations in SCOPUS).
- Z. Djurcic *et al.*, ”Shell Effects in Some Weak Nuclear Processes,” J. Res. Phys. **27**, 3 (1998).

CONFERENCE PROCEEDINGS

- P. De Lurgio *et al.*, ”A Wireless Power and Data Acquisition System for Large Detectors ,” proceedings of 2012 IEEE Nuclear Science Symposium and Medical Imaging Conference (2012 NSS/MIC).
- Z. Djurcic, ”Review of Reactor Antineutrino Experiments ,” J. Phys: Conf. Ser. **408** (2013) 012008, arXiv:1201.1522.
- Z. Djurcic, ”MiniBooNE Oscillation Results 2011 ,” J. Phys: Conf. Ser. **408** (2013) 012027, arXiv:1201.1519.
- Z. Djurcic, ”NOvA Experiment,” published in ”Particle Physics at the Tercentenary of Mikhail Lomonosov,” Proceedings of 15th Lomonosov Conference on Elementary Particle Physics, World Scientific Publishing (2013), ISBN 978-981-4436-82-3, 138-143.
- Z. Djurcic, ”DAEdALUS Experiment ,” published in ”Particle Physics at the Tercentenary of Mikhail Lomonosov,” Proceedings of 15th Lomonosov Conference on Elementary Particle Physics, World Scientific Publishing (2013), ISBN 978-981-4436-82-3, 132-137.
- Z. Djurcic, ”Measurement of the off-axis NuMI Neutrinos ,” Nucl. Phys. B Proc. Suppl. 229-232, **437** (2012).
- Z. Djurcic, ”Using Near Detector(s) to predict the Far Detector Events in NOvA Experiment ,” AIP Conf. Proc. 1382, **132** (2011).
- Z. Djurcic, ”New Observations in the MiniBooNE Experiment, ” AIP Conf. Proc. 1382, **91** (2011).

- Z. Djurcic, ”MiniBooNE Oscillation Results,” published in ”Electroweak Interactions and Unified Theories 2009”, The GIOI Publishers (2009), BPXB: 779-2009/CXB/4-141/ThG (25.08.2009), arXiv:0907.3747 [hep-ex] .
- Z. Djurcic, ”New MiniBooNE Results,” Proceedings of 34th International Conference on High Energy Physics, held in Philadelphia, Pennsylvania (2008), arXiv:0901.1648 (3 citations in SPIRES).
- Z. Djurcic, ”Results of the MiniBooNE Neutrino Oscillation Experiment,” published in ”Particle Physics on the Eve of LHC”, Proceedings of 13th Lomonosov Conference on Elementary Energy Physics, World Scientific Publishing (2008), ISBN 978-981-283-758-5.
- Z. Djurcic, “Neutrino oscillation search at MiniBooNE,” Nucl. Phys. Proc. Suppl. **168**, 309 (2007), arXiv:hep-ex/0701017 (4 citations in SPIRES).
- Z. Djurcic, “Backgrounds in neutrino appearance signal at MiniBooNE,” AIP Conf. Proc. **842**, 828 (2006), arXiv:hep-ex/0601014 (4 citations in SPIRES).
- Z. Djurcic, “Enriched Xenon Observatory for $0\nu\beta\beta$ Decay,” Nucl. Phys. B Proc. Suppl. **143**, 538 (2005).
- D. Akimov *et al.*, “EXO: An advanced Enriched Xenon double-beta decay Observatory,” Nucl. Phys. Proc. Suppl. **138**, 224 (2005) (17 citations in SPIRES).
- M. Krmar, M. Pantelic, and Z. Djurcic, ”Endpoint energy of therapy accelerators: Determination and control by activation technique,” Medical Physics, 29 (6), 1200 (2002).
- I. Bikit *et al.*, ”Low Level Performances of HPGe Spectrometer Active Shielding”, Proceedings of Symposium of Measurement and Measuring Equipment, 751-758, Belgrade (1998).
- M. Veskovic *et al.*, ”NMR ON ORIENTED NUCLEI A TOOL FOR MAGNETIC MOMENTS MEASUREMENTS,” Proceedings of the 3rd International Symposium, Interdisciplinary Regional Research University of Novi Sad, 339341(1998).
- I. Bikit *et al.*, ”DOUBLE BETA-DECAY EXPERIMENTS IN NOVI SAD,” Proceedings of The 3rd International Symposium, Interdisciplinary Regional Research University of Novi Sad, 347349 (1998).
- I. Bikit *et al.*, ”RADIOACTIVITY OF SOIL USED FOR VEGETABLE BREEDING AROUND NOVI SAD,” Proceedings of The 3rd International Symposium, Interdisciplinary Regional Research University of Novi Sad, 351353 (1998).
- I. Bikit *et al.*, ”LOW LEVEL γ-SPECTROMETRY FACILITY IN NOVI SAD,” Proceedings of The 3rd International Symposium, Interdisciplinary Regional Research University of Novi Sad, 343345 (1998).

- M.Veskovic *et al.*, "A STUDY OF ANISOTROPIC PARTICLE EMISSION FROM ORIENTED NUCLEI," Letters of Physical Sciences (SFIN-YU), Nuclear and Particle Physics, Ed. R. Antanasijevic, I.Anicin, A2, 14-18 (1998).
- Z. Djurcic *et al.*, "SEARCH FOR SHELL EFFECTS IN DOUBLE β - DECAY," Letters of Physical Sciences (SFIN-YU), Nuclear and Particle Physics, Ed. R. Antanasijevic, I.Anicin, A2, 27-35 (1998).
- Lj. Conkic *et al.*, "Extra Low-level Radio-cesium Determination by a Compton Suppressed Ge Gamma Spectrometer," 4th International Conference on Fundamental and Applied Aspects of Physical Chemistry, Belgrade, 1998, Papers, 301-303 (1998).
- Z. Djurcic *et al.*, "RADIONUCLIDES IN AGRICULTURAL SOIL AROUND NOVI SAD," Proceedings of The XX Symposium of JDZZ, Tara, 83-86 (1999) (In Serbian).
- M. Krmar *et al.*, "MUTUAL RELATION OF RADIONUCLIDES IN SOIL," Proceedings of The XX Symposium of JDZZ, Tara, 87-90 (1999) (in Serbian).
- N. Zikic *et al.*, "Indoor 222Rn concentration determination," Proceedings of The XX Symposium of JDZZ, Tara, 141-144 (1999) (in Serbian).
- M. Krmar *et al.*, "NEUTRON DOSE ESTIMATION IN THERAPEUTIC ACCELERATOR ROOM," Proceedings of The XX Symposium of JDZZ, Tara, 199-202 (1999) (in Serbian).

INVITED TALKS

- Accelerator-based Neutrino Experiments in US, international workshop on future potential of high intensity proton accelerator for particle and nuclear physics (HINT2015), J-PARC, Tokai, Japan, October 13-15, 2015.
- Short-Baseline Neutrino Experiments at Fermilab and Role of Near Detector, Implications of Neutrino Flavor Oscillations 2015 (INFO 2015) Santa Fe, July 13-17.
- Jiangmen Underground Neutrino Observatory (JUNO), plenary talk at IX International Conference on Interconnections between Particle Physics and Cosmology (PPC 2015), Lead, South Dakota, June 29 - July 3, 2015.
- LBNE in the Precision Era of Neutrino Oscillation: Status and Schedule, ICHEP 2014 (37th International Conference of High Energy Physics, 2-9 July 2014, Valencia, Spain), 2015.
- LBNE and LArIAT, talk at LArIAT workshop FNAL, July 10, 2014.
- Opportunities for collaboration in Neutrino Projects, 2013 Beijing-Chicago Workshop on Detector R&D, Beijing, China, June 20-21, 2013.

- Theta-13 Measurements, review talk in invited session on Intensity Frontier of APS April Meeting 2013, April 13-16, Denver, Colorado, 2013.
- Low Energy Accelerator Neutrino Experiments, Instrumentation Frontier Community Planing Meeting (CPAD), Argonne National Laboratory, January 9-11, 2013.
- Current Status and Future Possibilities with Double Chooz, International Workshop on Next Generation Nucleon Decay and Neutrino Detectors, Fermi National Accelerator Laboratory, October 4-6, 2012.
- Higgs or no Higgs, neutrinos hold the key, Higgs Retreat Workshop, Argonne National Laboratory, October 5, 2012.
- Final MiniBooNE Results, International Symposium on Neutrino Physics and Beyond, Shenzhen, China, September 23-26, 2012.
- DAEδALUS/IsoDAR, International Symposium on Neutrino Physics and Beyond, Shenzhen, China, September 23-26, 2012.
- First results from the Double Chooz reactor anti-neutrino experiment, Special Joint Experimental-Theoretical Physics Seminar, Fermi National Accelerator Laboratory, November 18, 2011.
- Status of the NOνA Experiment, 15th Lomonosov Conference on Elementary Particle Physics, Moscow, Russia, August 18 24, 2011.
- Review of Present and Future Reactor Neutrino Experiments, 13th International Workshop on Neutrino Factories, Superbeams and Beta Beams (NuFact2011), CERN/UniGe, Geneva, Switzerland, August 1-6, 2011.
- MiniBooNE Oscillation Report, 13th International Workshop on Neutrino Factories, Superbeams and Beta Beams (NuFact2011), CERN/UniGe, Geneva, Switzerland, August 1-6, 2011.
- How to use NOνA Near Detector to Predict ν Spectrum in Far Detector?, 12th International Workshop on Neutrino Factories, Superbeams and Beta Beams (NuFact 2010), Tata Institute of Fundamental Research, Mumbai, India, October 20-25, 2010.
- Updated MiniBooNE Results, 12th International Workshop on Neutrino Factories, Superbeams and Beta Beams (NuFact 2010), Tata Institute of Fundamental Research, Mumbai, India, October 20-25, 2010.
- Status of Double Chooz Reactor Neutrino Oscillation Experiment, Implications of Neutrino Flavor Oscillations Workshop, Santa Fe 2009, Santa Fe, 6-10 July 2009.
- MiniBooNE Oscillation Results, Rencontres de Moriond Electro-Weak 2009, La Thuile, Italy, 7-14 March 2009.

- New MiniBooNE Results, 34th International Conference on High Energy Physics (ICHEP08), Philadelphia, Pennsylvania, July 29-August 5, 2008.
- MiniBooNE Results, 2nd International Workshop on the Interconnection Between Particle Physics and Cosmology, Albuquerque, New Mexico, May 19-23, 2008.
- Analysis of Muon and Electron Neutrino Events from the NuMI Beamline at MiniBooNE, Special Joint Experimental-Theoretical Physics Seminar, Fermi National Accelerator Laboratory, December 11, 2007.
- Results of the MiniBooNE Oscillation Experiment, Conference on Fundamental Interactions, Novi Sad, Iriski Venac, Serbia, September 26 - 28, 2007.
- Results of the MiniBooNE Neutrino Oscillation Experiment, 13th Lomonosov Conference on Elementary Particle Physics, Moscow, Russia, August 23 - 29, 2007.
- Status of MiniBooNE Experiment, 21st International Workshop on Weak Interactions and Neutrinos, Kolkata, India, January 15 - 20, 2007.
- MiniBooNE, NOνA, MINERνA, Fermilab User's Meeting 2006, Fermi National Accelerator Laboratory, May 31 - June 1, 2006.
- MiniBooNE Results, Neutrino Oscillation Workshop 2006, Conca Specchiulla (Otranto, Lecce), Italy, September 9 - 16, 2006.
- The Braidwood Experiment, Particles and Nuclei International Conference, Neutrino Satellite Meeting: Future of Neutrino Physics, Santa Fe, New Mexico, October 29-30, 2005.
- Neutrino Oscillations and Neutrino Mass, University of Novi Sad, Serbia, Scientific Forum, March 17, 2004.
- Search for Shell Effects in Double Beta Decay, IX Yugoslav Conference on Nuclear and Particle Physics, Studenica, Serbia, 1998.
- Low Level Performances of HPGe Spectrometer Active Shielding, Symposium of Measurement and Measuring Equipment, Belgrade, Serbia, 1998.

LIST OF INVITED COLLOQUIA AND SEMINAR TALKS

- LBNE: Getting There, Intensity Frontier Series Seminar, Fermilab, October 2, 2014.
- Review of reactor oscillation searches, Physics Colloquium, Wayne State University, Detroit, January 19, 2012.
- New Observations in the MiniBooNE Experiment, Physics Seminar, Iowa State University, October 13, 2010.

- New Observations in the MiniBooNE Experiment, Physics Colloquium, National Institute for Nuclear Physics and High Energy Physics Amsterdam, Netherlands, September 17, 2010.
- New Oscillation Results from MiniBooNE, High Energy Physics Division Seminar, Argonne National Laboratory, June 23, 2010.
- Neutrinos: Little Particles with Big Consequences, Physics Seminar, Institute of Physics Belgrade, Serbia, February 17, 2010.
- Neutrinos: Little Particles with Big Consequences, Physics Seminar, University of Novi Sad, Serbia, February 18, 2010.
- Precision Measurements with Reactor Neutrinos, Neutrino Physics Seminar, Lawrence Livermore National Laboratory, September 17, 2009.
- Measuring Two Neutrino Beams with One Detector and Beyond, Special Physics Seminar, Fermi National Accelerator Laboratory, August 31, 2009.
- Measuring Two Neutrino Beams with One Detector and Beyond, High Energy Physics Division Seminar, Argonne National Laboratory, July 1, 2009.
- Neutrinos: Little Particles with Big Consequences, Physics Colloquium, Louisiana State University, January 15, 2009.
- Results of the MiniBooNE Neutrino Oscillation Experiment, Physics Colloquium, Drexel University, January 8, 2009.
- Searching for Physics Beyond the Standard Model with Neutrinos, Physics Colloquium, University of Alberta, Canada, April 7, 2008.
- Learning about Physics Beyond the Standard Model using Neutrinos, Physics Seminar, University of California, Davis, March 4, 2008.
- Searching for Physics Beyond the Standard Model with Neutrinos, Physics Colloquium, University of Virginia, February 13, 2008.
- Measurement of the off-axis NuMI beam with MiniBoone, Particle Physics Seminar, Brookhaven National Laboratory, January 17, 2008.
- Low Energy Excess at MiniBooNE, Columbia University, Particle Fest 2007, October 5, 2007.
- Search for an Excess of Low Energy nue-like Events from NuMI Beam at MiniBooNE, Imperial College London, United Kingdom, Physics Seminar, September 20, 2007.
- First Results from the MiniBooNE Oscillation Experiment at Fermilab, Kansas State University, Physics Seminar, April 18, 2007.
- First Results from the MiniBooNE Oscillation Experiment at Fermilab, Kansas University, Physics Seminar, April 17, 2007.

- First Results from the MiniBooNE Oscillation Experiment at Fermilab, Northwestern University, Physics Seminar, April 16, 2007.
- Neutrino Oscillation Measurements With Reactors, Fermi National Accelerator Laboratory, MiniBooNE Summer Seminar Series, August 12, 2005.
- Results of KamLAND Experiment, University of Novi Sad, Serbia, Physics Seminar, June 2, 2005.
- MiniBooNE Experiment, Institute of Physics Zemun, Belgrade University, Serbia, Physics Seminar, May 31, 2005.
- Double Beta Decay and Neutrino Mass, University of Novi Sad, Serbia, Physics Seminar, March 18, 2004.
- Neutrino Oscillations and KamLAND Experiment, Institute of Physics Zemun, Belgrade University, Serbia, Physics Seminar, March 16, 2004.
- Neutrino Masses and Mixings, University of Alabama, Physics Seminar, January 16, 2004.

CONTRIBUTED CONFERENCE TALKS

- Novel approach to δ_{CP} measurement in neutrino sector: DAEδALUS Experiment, 15th Lomonosov Conference on Elementary Particle Physics, Moscow, Russia, August 18 24, 2011.
- DAEδALUS Experiment, 12th International Workshop on Neutrino Factories, Superbeams and Beta Beams (NuFact 2010), Tata Institute of Fundamental Research, Mumbai, India, October 20-25, 2010.
- Measurement of the off-axis NuMI Neutrinos (Talk and Poster), XXIV International Conference on Neutrino Physics and Astrophysics, Athens, Greece, June 14-19, 2010.
- MiniBooNE Neutrino Oscillation Results, 18th International Conference on Particles And Nuclei (PANIC08), Eilat, Israel, November 9-14, 2008.
- Status of Double Chooz Reactor Neutrino Oscillation Experiment, 18th International Conference on Particles And Nuclei (PANIC08), Eilat, Israel, November 9-14, 2008.
- April Meeting of the American Physical Society, Measurement of ν_μ and ν_e events in an Off-Axis Neutrino Beam, St. Louis, Missouri, Bulletin of the American Physical Society April 2008, Vol. 53, No. 5, 234.
- Neutrino Oscillation Search at MiniBooNE, 6th Rencontres du Vietnam (Challenges in Particle Astrophysics), Hanoi, Vietnam, August 6 - 12, 2006.

- April Meeting of the American Physical Society, Neutrino Cross Sections at MiniBooNE, Dallas, Texas, Bulletin of the American Physical Society April 2006, Vol. 51, No. 2, 79.
- Backgrounds in Neutrino Appearance Signal at MiniBooNE, Particles and Nuclei International Conference, Santa Fe, New Mexico, October 24-28, 2005.
- April Meeting of the American Physical Society, Uncertainties in the Anti-neutrino Production from Nuclear Reactors, Tampa, Florida, Bulletin of the American Physical Society April 2005, Vol. 50, No. 2, 92.
- CAM-2003, Students Visions for Physics in XXI Century, Evidence for reactor anti-neutrino disappearance from KamLAND, Merida, Mexico, October 2003, Bulletin of CAM-2003, 3.
- April Meeting of the American Physical Society, Division of Particles and Fields, Status of the EXO Project, Philadelphia, Pennsylvania, Bulletin of the American Physical Society April 2003, Vol. 48, No. 2, 32.
- November Meeting of Southeastern Section of the American Physical Society, Radioactivity Measurement for KamLAND, Starkville, Mississippi, 2000.

STUDY REPORTS

- F. An *et al.* [JUNO Collaboration] Neutrino Physics with JUNO, arXiv:1507.05613 (2015).
- C. Adams *et al.*, ”The Intermediate Neutrino Program ,” arXiv:1503.06637 (2015).
- C. Adams *et al.*, ”A Proposal for a Three Detector Short-Baseline Neutrino Oscillation Program in the Fermilab Booster Neutrino Beam ,” arXiv: 1503.01520 (2015).
- A. de Gouvea *et al.* [Intensity Frontier Neutrino Working Group Collaboration], ”Neutrinos ,” arXiv:1310.4340 [hep-ex].
- M. Demarteau, R. Lipton, H. Nicholson, I. Shipsey, D. Akerib, A. Albayrak-Yetkin, J. Alexander, J. Anderson *et al.*, ”Instrumentation Frontier Report ,” arXiv:1401.6116 [hep-ex].
- Z. Djurcic *et al.*, ”PROSPECT - A Precision Reactor Neutrino and Oscillation Spectrum Experiment at Very Short Baselines ,” arXiv:1309.7647 [physics.ins-det].
- H. Berns *et al.* [CAPTAIN Collaboration], ”The CAPTAIN Detector and Physics Program, ” arXiv:1309.1740 [physics.ins-det].
- C. Adams *et al.* [LBNE Collaboration], ”Scientific Opportunities with the Long- Baseline Neutrino Experiment ,” arXiv:1307.7335 [hep-ex].
- C. Aberle *et al.*, ”Whitepaper on the DAEdALUS Program ,” arXiv:1307.2949 [physics.acc-ph].

- A. Adelmann *et al.*, Cost-effective Design Options for IsoDAR, arXiv:1210.4454.
- J. Goon *et al.*, The Long Baseline Neutrino Experiment (LBNE) Water Cherenkov Detector (WCD) Conceptual Design Report (CDR), arXiv:1204.2295.
- J. L. Hewett *et al.*, Fundamental Physics at the Intensity Frontier, arXiv:1205.2671.
- K. N. Abazajian *et al.*, Light Sterile Neutrinos: A White Paper, arXiv:1204.5379.
- T. Akiri *et al.* [The LBNE Collaboration], The 2010 Interim Report of the Long-Baseline Neutrino Experiment Collaboration Physics Working Groups, arXiv:1110.6249 [hep-ex].
- J. Alonso *et al.*, A Study of Detector Configurations for the DUSEL CP Violation Searches Combining LBNE and DAEδALUS , arXiv:1008.4967 [hep-ex].
- J. Alonso *et al.*, Expression of Interest for a Novel Search for CP Violation in the Neutrino Sector: DAEδALUS, arXiv:1006.0260 [phys.ins-det].

TECHNICAL REPORTS

- G. Yang, Z. Djurcic, M. Goodman, DCIII nGd + nH combined fit, Double Chooz internal note, 9/2015.
- Z. Djurcic *et al.*, Calibration System Study for the JUNO Detector: Guide Tube Case, JUNO internal note, 7/2015.
- H. Sahoo and Z. Djurcic, Neutral Current π^o Analysis, NOvA internal note, 3/2015.
- Z. Djurcic and G. Drake, Development of the Readout Electronics for the Photon Detection System of the Long Baseline Neutrino Experiment, submitted to LBNE Project Office, 3/2013.
- Z. Djurcic and G. Drake, Development of a Prototype Calibration System for the LBNE Photon Detection System, submitted to LBNE Project Office, 1/2013.
- M. Demarteau *et al.*, Simulation of Water-based Detector with Fast Time Resolution, ANL HEP internal note, 3/2012.
- G. Yang and Z. Djurcic, Study of Bi-Po Coincidence, Double Chooz docdb-4660, submitted 3/2013.
- Z. Djurcic *et al.*, Second Calibration Source Data Info, Double Chooz docdb-4129, submitted 6/2012.
- P-J. Chang *et al.*, Neutron Efficiency Analysis Results, Double Chooz docdb-3364, submitted 2/2012.

- Z. Djurcic *et al.*, Deployed Radioactive Calibration Source Info, Double Chooz docdb-3202, submitted 10/2011.
- I. Ostrovskiy *et al.*, First Source Calibration, Double Chooz docdb-2946, submitted 8/2011.
- Z. Djurcic *et al.*, Reactor Group Proposal, Double Chooz docdb-2008, submitted 11/2010.
- Z. Djurcic *et al.*, Calibration Review Summary Document, Double Chooz docdb-1437, submitted 3/2010.
- M. D. Agostino *et al.*, Cosmic Ray Backgrounds in the NOvA Far Detector, NOvA docdb-4647, submitted 3/2010.
- Z. Djurcic *et al.*, Improvements in the modeling and analysis of neutrino interactions from NuMI beamline at MiniBooNE, MiniBooNE note, submitted 6/2010.
- Z. Djurcic, Analysis of neutrino dirt interactions from NuMI beamline at MiniBooNE, MiniBooNE note, submitted 6/2010.