

## ANDREW T. SUSTICH, PH.D.

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### PROFESSIONAL SUMMARY

Arkansas State University, Jonesboro, Arkansas

Associate Vice Chancellor for Research/Executive Director A-State Biosciences Institute, July 2016 – May 2018

Vice Provost for Research and Graduate Studies/Executive Director A-State Biosciences Institute, January 2013 – June 2016

Interim Executive Director, A-State Biosciences Institute, June 2012 – December 2012

Interim Associate Vice-Chancellor, Research and Technology Transfer, May 2012 – December 2012

Dean, Graduate School, January 2005 – December 2012

Dean, The Honors College, July 2005 – August 2012

Interim Dean, College of Sciences and Mathematics, Nov 2008 – June 2009

Interim Associate Vice-Chancellor, Research and Technology Transfer, May 2004 – January 2005

Interim Dean, College of Humanities and Social Sciences, July 2003 – June 2004

Interim Dean, College of Arts and Sciences, February 2003 – June 2003

Associate Dean, College of Arts and Sciences, July 2001 – January 2003

Professor of Physics, August 1999 – present

Associate Professor of Physics, August 1994 – August 1999

Assistant Professor of Physics, August 1991 – August 1994

Treasurer, Conference of Southern Graduate Schools, February 2010 – February 2016

Executive Director – The National Faculty (Jonesboro Field Office), March 1999 – Aug 2001

JOVE (Joint Venture) Faculty Research Associate (NASA Goddard Space Flight Center), May 1992 – May 1997

Visiting Research Associate, National Superconducting Cyclotron Laboratory, East Lansing, MI, November 1989 – August 1991

### EDUCATION

Ph.D. in Physics, 1989, University of Illinois at Urbana-Champaign

M.S. in Physics, 1984, University of Illinois at Urbana-Champaign

B.S. with Highest Honors in Nuclear Engineering, 1981, University of Illinois at Urbana-Champaign

## ADMINISTRATIVE EXPERIENCE

Associate Vice Chancellor for Research/Executive Director A-State Biosciences Institute, Arkansas State University, July 2016 – May 2018

This position is the chief research officer for the institution, which includes the position of Executive Director of the A-State Biosciences Institute. It's responsibilities differ from the previous Vice Provost for Research and Graduate Studies in that the institution has eliminated the formal centralized Graduate School, and graduate education oversight is decentralized across campus.

Vice Provost for Research and Graduate Studies/Executive Director A-State Biosciences Institute, Arkansas State University, January 2013 – June 2016

This position is a consolidation of the three positions: Associate Vice-Chancellor for Research and Technology Transfer, Executive Director of A-State Arkansas Biosciences Institute, and Dean of the Graduate School and includes all responsibilities as listed below for these positions.

Interim Executive Director, A-State Arkansas Biosciences Institute, June 2012 – December 2012

Oversight and management of A-State ABI. The A-State Biosciences Institute is the first stand-alone research facility on campus, funded by Arkansas Tobacco Settlement Commission. Funding began in 2000 and facility opened 2004. Responsible for all aspects of ABI research funding for institution, including building maintenance and repair, and scientific instrumentation acquisition and maintenance, as well as direct research funding for faculty research.

Interim Associate Vice-Chancellor for Research and Technology Transfer, Arkansas State University, May 2012 – December 2012

Responsible for assisting faculty and staff in extramural funding proposal preparation and submission including creation of faculty programming for research development. Oversight and development of policies and procedures related to extramural funding, technology transfer activities and research compliance. Serve as liaison between university and government agencies (state & federal), industry, and foundations. Responsible for oversight and management of Catalyst Incubator, a biotech business incubator operated by our research foundation.

Dean, Graduate School, Arkansas State University, January 2005 – December 2012

Responsible for graduate school recruitment, admissions, retention, and graduation oversight. Modernizing the graduate admission process through development of an image document sharing system to provide closer collaboration with graduate programs throughout the admissions process. Revamping of distribution of \$1.5M graduate assistant stipend budget to provide more incentives for graduate students to come to ASU and graduate programs to actively recruit new students. Served as co-PI on McNair Scholars Program being implemented with U.S. Dept. of Education.

Dean, The Honors College, Arkansas State University, July 2005 – August 2012

Oversight of ongoing transition process from Honors Program to Honors College. Coordination with Financial Aid/Scholarship Office on recruitment, application, and award of highest level of scholarship (which requires participation in the Honors

College). Supervision of Associate Dean and Assistant Dean who were responsible for day-to-day activities of the college.

Interim Dean, College of Sciences and Mathematics, Arkansas State University, November 2008 – June 2009

Responsibilities included academic, personnel, and budgetary issues for the college.

Interim Associate Vice-Chancellor for Research and Technology Transfer, Arkansas State University, May 2004 – January 2005

See responsibilities as listed above.

Interim Inaugural Dean, College of Humanities and Social Sciences, Arkansas State University, July 2003 – June 2004

Responsibilities included academic, personnel, and budgetary issues for this new college, including development of promotion and tenure standards, faculty professional development, committee structures for governance.

Interim Dean, College of Arts and Sciences, Arkansas State University, February 2003 – June 2003

Full responsibility for all academic, personnel, and budgetary issues for the college since my previous position of Associate Dean was vacant throughout this period. Primary charge was to oversee the separation of the College of Arts and Sciences into the College of Sciences and Mathematics and the College of Humanities and Social Sciences, the separation of the Department of Computer Science and Mathematics into the Department of Mathematics and Statistics and the Department of Computer Science, and the separation of the Social Work Program from the Department of Criminology, Sociology, Social Work, and Geography to its new home as a separate department within the College of Nursing and Health Professions.

Associate Dean, College of Arts and Sciences, Arkansas State University, July 2001 – February 2003

Responsibilities included: budgeting and distribution to departments of capital equipment funding, faculty development funding, and student infrastructure funding; overseeing all committee structure for the college including chairing the Dean's Student Advisory Committee and the Radiation Safety Committee; providing Dean's office response/action on all student initiated issues/complaints.

Executive Director, The National Faculty (Jonesboro Field Office), March 1999 – August 2001

Responsibilities included: direct day-to-day operations for local office of national organization providing K12 professional development to teachers; hiring personnel; identifying school districts for collaboration and negotiating their matching commitment to projects; developing individualized needs assessments to provide focus to teacher development as well as outcomes assessments to measure successes; identifying university faculty (both at ASU and elsewhere) who could contribute to teacher development projects and negotiating their consultation contracts for participation.

Physics Coordinator, Dept. of Chem. and Physics, Arkansas State University, August 1999 – July 2001

Responsibilities included: all scheduling and faculty workload reporting as well as decisions regarding physics-specific budgeting.

### **TEACHING EXPERIENCE**

Department of Computer Science, Mathematics, and Physics (1991-1994), Department of Chemistry and Physics (1994-2002, 2019-present)

Taught full spectrum of undergraduate physics courses including introductory sequence and upper level majors courses; reformed introductory sequence (with NSF grant support) to include computers and new data acquisition technologies, web-based homework, peer-to-peer instruction, and elimination of traditional lecture format; created new general education course Introduction to Space Science to provide science literacy and concepts training for non-science majors; taught special topics courses on solar physics and nuclear heavy-ion collisions for students involved in research; taught series of graduate courses on physics content and pedagogy with NSF funding for project Constructing Physics Understanding (centered at San Diego State University) and Physics Modeling (centered at Arizona State University); taught graduate course Science Crusade, an NSF Statewide Systemic Initiative funded program to improve science instruction at the grades 5-12 level across the state.

### **PROFESSIONAL ACTIVITIES**

Board of Directors – Arkansas Science and Technology Authority (2012 – present)

Appointed by Governor to governing board for state science agency. As of July 2015, a reorganization of state government moved this under the Arkansas Economic Development Commission as the Division of Science and Technology, with the same governing board now governing this division.

Arkansas Science Advisory Committee (2012 – present, elected chair for three-year term 2015)

State board that serves as EPSCoR Advisory Board and that maintains state Science and Technology Plan

Vice President/President-Elect/President/Past-President – Arkansas Academy of Science (2018 – present)

Four year elected leadership position with state academy.

Advisory Board – Grants Resource Center (GRC) of the American Association of State Colleges and Universities (AASCU) (2017 – 2018)

At-large appointment to board of grant unit under AASCU

Treasurer, Conference of Southern Graduate Schools (2010 – 2016)

Executive Officer with regional affiliate of Council of Graduate Schools, responsibilities include all meeting logistics/planning include site selection, hotel contract negotiations, program preparation/printing, membership (dues invoicing, meeting registration)

Grant Reviewer – Most recently NSF for Graduate Research Fellowship Program (GRFP), previously NSF, U.S. Civilian Research and Development Foundation, Arkansas DEPSCoR (DoD EPSCoR), Arkansas Department of Higher Education, Arkansas NASA EPSCoR, Arkansas Space Grant Consortium, Arkansas Student Undergraduate Research Fellowships (SURF)

**RECENT PRESENTATIONS:**

- “Who Owns It? Understanding Undergraduate Research, Intellectual Property and Tech Transfer”, Panel Speaker at Council on Undergraduate Research 2018 Biennial, 3 July 2018 Crystal City Virginia
- “Best Practices for Student Learning in Undergraduate Research Events”, Poster Presentation at Council on Undergraduate Research 2018 Biennial, 2 July 2018 Crystal City Virginia
- “New Strategies in Research Development for Today’s Funding Environment”, National Council of University Research Administration – Region III, 9 May 2017, Savannah, Georgia
- “Pathways through Graduate School – Distance Education”, Panel Discussion at Conference of Southern Graduate Schools, 19 February 2016, Charlotte, North Carolina
- “Results From the Enhancing Student Financial Education Project”, Panel Speaker at Council of Graduate Schools Annual Meeting, 4 December 2015, Seattle, Washington
- “Managing Program and Staff Cuts”, Hot topic discussion at Council of Graduate Schools Summer Workshop, 11 July 2011, Monterey, California
- “Who’s in Charge? Organization and Control of Effective Graduate Programs”, Plenary Panel at Conference of Southern Graduate Schools, 26 February 2011, Huntsville, Alabama
- “Professional Development for Graduate Students”, National Environmental Studies & Science Summit, 22 May 2008, Jonesboro, Arkansas
- “Challenges in International Graduate Student Recruiting”, Panel Discussion at Southwestern Regional Forum of The College Board, 3 February 2006, The Woodlands, Texas
- “When Masters I meets Doctoral Programming”, Panel Discussion at Annual Meeting of the Council of Colleges of Arts and Sciences, 15 November 2003, Orlando, Florida

**EXTRAMURAL GRANTS:** (only external amounts listed)

- “NSF EPSCoR Track 1 – Center for Applied Surface Engineering (CASE)”, Years 1-3 NSF subawards from Arkansas Economic Development Commission, August 2015, \$962,200
- “Summit on the Formation of a Delta Research Consortium”, Oak Ridge Associated Universities, Oct. 2014, \$4,000
- “Bridging the Divide: A Program to Broaden Participation in STEM Graduate Education”, Oak Ridge Associated Universities, Oct. 2013, \$4,000
- “The Use of Technology and Peer Mentorship to Improve Financial Literacy”, CGS/TIAA-CREF, July 2013, \$39,986
- “ARK-LSAMP – Arkansas Louis Stokes Alliance for Minority Participation”, National Science Foundation, July 2008, \$3.5M. UAPB (state public HBCU) is lead institution, I co-wrote proposal with UAPB PI.

- “Probing the Equation of State of Dense Matter in Neutron Stars”, Arkansas Space Grant Consortium – Collaborative Research Project, March 2005, \$67,500
- “NASA’s Space Explorations: Views from Atlantis and Endeavor: A two campus visit by Captain Winston Scott”, Arkansas Space Grant Consortium – Guest Lecturer Grant, February 2004, \$3,000
- “Arkansas State University Ronald C. McNair Post-baccalaureate Achievement Program”, U.S. Department of Education, September 2003, \$943,143
- “Physics Modeling Workshop: An NSF Exemplary Program”, Arkansas Department of Higher Education Eisenhower Professional Development Program, October 2001, \$41,294
- “Northeast Arkansas P-16 Partnership”, Arkansas Department of Higher Education Teacher Quality Enhancement Program, October 2001, \$7,000
- “Constructing Physics Understanding in a Computer Supported Learning Environment”, National Science Foundation subcontract from Center for Research in Math and Science Education (San Diego State University) October 1999, \$33,000
- “Constructing Physics Understanding 2000”, Arkansas Department of Higher Education Eisenhower Professional Development Program, October 1999, \$44,555
- “Administrative Travel Grant”, Arkansas Space Grant Consortium, December 1999, \$1,553
- “Mechanical vs. Chemical Instability in Nuclear Matter”, SILO Undergraduate Research Fellowship, November 1999, \$2,650
- “Teacher Visit to Marshall Space Flight Center”, Arkansas Space Grant Consortium, March 1999, \$2,015
- “Constructing Physics Understanding 1999”, Arkansas Department of Higher Education Eisenhower Professional Development Program, October 1998, \$58,870
- “Chemical and Dynamical Changes in the Mesosphere and Stratosphere”, Arkansas Space Grant Consortium – Guest Lecturer Grant, March 1998, \$870
- “Elementary/Middle School Teacher Visit to NASA Center”, Arkansas Space Grant Consortium, March 1998 \$2,490
- “Constructing Physics Understanding in a Computer Supported Learning Environment”, National Science Foundation subcontract from Center for Research in Math and Science Education (San Diego State University), October 1998, \$27,000
- “Constructing Physics Understanding II”, Arkansas Department of Higher Education Eisenhower Professional Development Program, October 1997, \$64,365
- “Science Crusade”, Arkansas Department of Higher Education NSF Statewide Systemic Initiative Program, July 1997, \$19,897
- “Constructing Physics Understanding in a Computer Supported Learning Environment”, National Science Foundation subcontract from Center for Research in Math and Science Education (San Diego State University), October 1997, \$26,980
- “Constructing Physics Understanding in a Computer Supported Learning Environment”, Arkansas Department of Higher Education Eisenhower Professional Development Program, October 1996, \$16,478
- “Constructing Physics Understanding in a Computer Supported Learning Environment”,

- National Science Foundation subcontract from Center for Research in Math and Science Education (San Diego State University), September 1996, \$4,000
- “Science Crusade”, Arkansas Department of Higher Education NSF Statewide Systemic Initiative Program, July 1996, \$105,508
- “School-College Collaboration”, Arkansas Department of Higher Education-Higher Education Promotional Grant, July 1996 \$119,508
- “Constructing Physics Understanding in a Computer Supported Learning Environment”, Arkansas Department of Higher Education Eisenhower Professional Development Program, May 1996, \$6,035
- “A Unified Physics Multimedia Laboratory”, National Science Foundation Instrumentation and Laboratory Improvement Program, July 1995, \$46,849
- “School-College Collaboration”, Arkansas Department of Higher Education-Higher Education Promotional Grant, July 1995 \$106,850
- “X-Ray and Gamma-Ray Imaging of Solar Flares”, Arkansas Space Grant Consortium, March 1995, \$7,349
- “Joint Venture (JOVE) Augmentation Grant”, National Aeronautics and Space Administration, May 1995, \$19,977
- “Imaging of Solar Flare Gamma Rays”, Arkansas Science and Technology Authority, January 1995, \$29,955
- “Science Crusade”, Arkansas Department of Higher Education NSF Statewide Systemic Initiative Program, January 1995, \$98,512
- “A Multimedia Learning Environment”, Arkansas Department of Higher Education- Higher Education Promotional Grant, July 1994, \$76,000
- “Low-Speed Wind Tunnel”, Arkansas Space Grant Consortium, January 1994, \$5,529
- “Gamma Ray Emissions from Binary Pulsar Systems”, SILO Undergraduate Research Fellowship, November 1993, \$1,927
- “Astronomy/Astrophysics Colloquia Series”, Arkansas Space Grant Consortium, January 1993, \$3,610
- “Outreach Programs”, Arkansas Space Grant Consortium, November 1992, \$1,800
- “Nuclear Processes in Solar Flares”, Arkansas Space Grant Consortium, November 1992, \$14,598
- “Joint Venture (JOVE)”, National Aeronautics and Space Administration, October 1992, \$111,487
- “Joint Venture (JOVE) Fellowship”, National Aeronautics and Space Administration, May 1992, \$13,982

**REFEREED PUBLICATIONS:**

- Zhang, B.; Li, B.A.; **Sustich, A.T.**; Teal, C: “Nuclear modification of heavy quark fragmentation function and J/psi production in ultrarelativistic heavy ion collisions”, *Physics Letters B* **546** 63(2002).
- Li, B.A.; **Sustich, A.T.**; Tilley, M.; Zhang, B.: “Probing mechanical and chemical instabilities in neutron-rich matter”, *Nuclear Physics A* **699**, 493 (2002).
- Li, B.A.; **Sustich, A.T.**; Zhang, B.: “Proton elliptic differential flow and the isospin dependence of the nuclear equation of state”, *Physical Review C* **64**, 054604(2001).
- Li, B.A.; **Sustich, A.T.**; Tilley M.; Zhang, B.: “Isospin dependence of mechanical and chemical instabilities”. *Physical Review C* **64**, R051303(2001).
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- Zhang, B.; Ko, C.M.; Li, B.A.; **Sustich, A.T.**: “Directed flow of neutral strange particles at AGS”, *Journal of Physics G* **26**, 1665 (2000).
- Li, B.A.; **Sustich, A.T.**: “Differential flow in heavy-ion collisions at balance energies”, *Physical Review Letters* **82**, 5004 (1999).
- Li, B.A.; Zhang, B.; **Sustich, A.T.**; Ko, C.M.: “Kaon differential flow in relativistic heavy-ion collisions”, *Physical Review C* **60**, 034902 (1999).
- Li, B.A.; Ko, C.M.; **Sustich, A.T.**; Zhang, B.: “Excitation function of nucleon and pion elliptic flow in relativistic heavy ion collisions”, *Physical Review C* **60**, 011901 (1999).
- Li, B.A.; Ko, C.M.; Lacey, R.A.; **Sustich, A.T.**; Zhang, B.: “Excitation function of collective flow in relativistic heavy-ion collisions”, in Heavy-Ion Physics from Bevalac to RHIC, Ed. R. Seto, World Scientific (Singapore) (1999).
- Ackermann, K.H.; **et.al.**; “The STAR Time Projection Chamber”, *Nuclear Physics A* **661**, 681c (1999).
- Wieman, H.; **et.al.**: “Recent Developments on the Star Detector System at RHIC”, *Nuclear Physics A* **638**, 559c (1998).
- Ieki, K.; **et.al.**: “Coulomb dissociation of  $^{11}\text{Li}$ ”, Proceedings of Tours Symposium on Nuclear Physics II, Eds. M. Ohta, and B.Rемаud, World Scientific (Singapore) (1995).
- Adams, D.L.; **et.al.**: “The STAR experiment at the Relativistic Heavy Ion Collider”, *Nuclear Physics A* **566**, 277 (1994).
- Hall, T.A.; **Sustich, A.T.**: “Gamma ray emissions from binary pulsar systems”, *Proceedings of the Arkansas Academy of Science* **48**, 67 (1994).
- Sackett, D.; **et.al.**: “Electromagnetic excitation of  $^{11}\text{Li}$ ”, *Physical Review C* **48**, 118 (1993).
- Galonsky, A.; **et.al.**: “Electromagnetic Excitation of  $^{11}\text{Li}$ ”, Proceedings of the Third International Conference on Radioactive Nuclear Beams, ed. D.J. Morrissey, Editions Frontieres (Gif-sur-Yvette) (1993).
- Ieki, K.; **et.al.**: “Coulomb dissociation of  $^{11}\text{Li}$ ”, *Physical Review Letters* **70**, 730 (1993).
- Bertulani, C.A.; **Sustich, A.T.**: “Multipole response of  $^{11}\text{Li}$ ”, *Physical Review C* **46**, 2340 (1992).



Zhao, L.; **Sustich, A.T.**: “Higher Order Corrections to Quasiparticle RPA”, *Annals of Physics* **213**, 378 (1992).

**Sustich, A.T.**: “Energy dependence of  $^{11}\text{Li}$  dissociation cross section”, *Zeitschrift fur Physics A* **342**, 31 (1992).

Bingham, C.R.; Rohozinski, S.G.; **Sustich, A.T.**; Wood, J.L.: “Evaluation of self-consistent-field methods”, in International Workshop: Nuclear Structure Models, eds. Bengtsson, R.; Draayer, J.; Nazarewicz, W., World Scientific (Singapore) (1992).

Bertsch, G.; Esbensen, H.; **Sustich, A.T.**; “Coulomb versus nuclear breakup in  $^{11}\text{Li}$  fragmentation”, *Physical Review C* **42**, 758 (1990).

**Sustich, A.T.**: “Reaction and breakup cross sections for exotic nuclei”, in Nuclear Structure and Heavy Ion Reaction Dynamics 1990, Eds. Bett, R.R.; Kolata, J.J., Institute of Physics (Bristol) (1991).

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