

Curriculum Vitae

R. RUSSELL BETTS



PERSONAL:

Born - Harrogate, Yorkshire, England

Naturalized US Citizen

Married to Katherine Anne Puusti, two children – Nicholas, Alison

EDUCATION:

B.A. (Hons) Oxford University

M.A. Oxford University

M.S. University of Pennsylvania

Ph.D. University of Pennsylvania

PROFESSIONAL CAREER:

Dean, College of Science, IIT (2012-Present)

Dean, College of Science and Letters, IIT (2008-2012)

Professor of Physics, IIT (2008-present)

Research Professor and Professor Emeritus of Physics, UIC (2008-present)

Vice Provost for Planning and Programs, UIC (2003-2008)

Professor of Physics, UIC (1994-2008)

Adjunct Professor of Physics, UIC (1993-94)

University Lecturer in Nuclear Physics, Oxford University (1984-86)

Fellow of Lady Margaret Hall, Oxford University (1984-86)

Senior Physicist (1988-1999), Argonne National Laboratory

Physicist (1979-1988), Argonne National Laboratory

Assistant Professor of Physics, Yale University (1975-79)

Visiting Scientist, Niels Bohr Institute, University of Copenhagen (1973-75)

Postdoctoral Research Associate, University of Pennsylvania (1972-73)

SCHOLARSHIP:

My research interests have been wide-ranging in the fields of Atomic, Nuclear and High Energy Physics. My work is well known in the study of cluster structure in atomic nuclei and I am the discoverer of several important phenomena in this field. As spokesman of the APEX experiment, I spearheaded the U.S. effort to resolve one of the most tantalizing problems of atomic and nuclear physics – the well-known “Positron Peak Problem”. Most recently, I led the ANL-UIC group in studies of high energy density QCD matter at Brookhaven National Laboratory’s Relativistic Heavy Ion Collider (RHIC) and at CERN’s Large Hadron Collider (LHC). I am co-author of over 400 refereed articles and book chapters and have delivered more than 50 invited conference and symposium presentations at national and international meetings.

A complete record of my publications is available at:

<http://slac.stanford.edu/spires/find/hepnames/www?rawcmd=find+name+betts>

PROFESSIONAL ASSOCIATIONS:

Fellow, American Physical Society

Past-Chair, Prairie Section, American Physical Society

Member, Board of Directors URA Fermilab Research Associates

Member Advisory Board Perspectives Charter Schools/IIT

ADMINISTRATIVE ACTIVITIES & ACHIEVEMENTS:

IIT:

Strategic Planning:

- Strategic Planning for College of Science and Letters.
- Strategic Planning for IIT.

College Structure and Administration:

- Restructured Dean's Office. Added new Associate Dean and staff.
- Expanded College Board of Overseers from 5 to 12 members.
- Moved Dean's office and staff to new, contiguous space.
- Deconstructed Department of Biological, Chemical and Physical Sciences.
- Reorganization of reporting structure for research institutes.
- Hired new Chairs of Computer Science, Humanities, Physics and Social Sciences Departments.

Resources and Budgeting:

- Encouraged transparency in budgeting process.
- Initiation of Responsibility Centered Budgeting.
- Growth of revenues to accommodate cuts and shortfalls.
- Managed enrollment planning and growth

Promotion and Branding the College:

- Redefinition of College brand and promotional activities.
- The "Lewis Project" – connecting the College to its roots in The Lewis Institute.
- Initiated Distinguished Lectures across the disciplines.
- Campus-wide lectures and discussions on topics of current interest.

Institutional Advancement:

- Three endowed chairs secured, including the first endowed chair in the college and other major gifts.
- Major gifts for facilities renovations.
- Engagement of Alumni and friends through visits, events, personal communication and newsletters.
- Definition of both short- and long-term philanthropic needs of the college.
- Spokesperson for IIT at alumni and board events.
- Planning for IIT Capital Campaign.

Educational and Program Development:

- Leadership of IIT "Distinctive Education" working group.
- Revision of General Education requirements and structure.
- Development and growth of professional masters programs.
- Development of new 4+1 programs.
- Partnership with UK & Chinese universities
- Transferred Masters in Public Administration to Business School.

- Student recruitment efforts to grow the number of majors in the college.

Interdisciplinary Studies:

- “Decision Making in a Complex World” Institute
- New programs in applied science, mathematical finance, and data analytics etc.
- Math/Science Education programs for CPS teachers.
- Supported symposia on “Digital Humanities” and the “Benjamin Franklin Project”

Faculty:

- Hired 33 new faculty in past four years.
- Initiated joint appointments between IIT - ANL, and Fermilab.
- Faculty recognition and awards – Fellowships, CAREER and OJI Awards
- Rigorous process and standards for promotion and tenure.
- Initiated formal faculty mentoring program.
- Initiated teaching excellence and faculty teaching development program.
- Dean’s Awards for Excellence in Research and Service.

Teaching Excellence and Recognition:

- Task force on teaching excellence and effectiveness.
- Annual symposium on teaching excellence, academic honesty.
- Dean’s Awards for Teaching Excellence.
- Initiated Dean’s distinguished Teaching Fellows program.

Research Development:

- Academic research infrastructure proposals to improve space and facilities.
- Review and strengthening research centers.
- Undergraduate summer research program.
- Facilities renovation planning and fundraising.

UIC:

Strategic Planning:

- Co-Chair of 2010 Strategic Thinking Committee – Developed a new vision and statement of mission for UIC.
- Coordinated Campus and Unit level Strategic Plans – Based on Strategic Thinking developed strategic plans for campus and UIC’s colleges and administrative units.
- Chaired UIC Mission Revision Committee – Formally revised UIC’s Mission Statement.
- Chaired UIC Peer Group Development Committee – Identified peer groups for institutional comparison with UIC.
- Strategic Plan Progress Reports – the progress report for President White to present to the Board of Trustees.

- Strategic Planning for Diversity at UIC – Articulate a plan to improve UIC’s outstanding diversity and build on the advantages that our diversity brings.
- UIC Master Plan Executive Committee – Definition of scope of master planning project and selection of planning consultants.

Resources and Budgeting:

- Chair Resource Task Force – Charged to report on UIC’s resource picture to provide a basis for future plan execution.
- Alignment of budgeting process with strategic planning goals and metrics – Defined a structure aligned with strategic planning objectives for annual budget discussions.
- Steering Committee for UIC Development Campaign Strategy – Defined overall structure and messaging for UIC Capital Campaign.

Program Development:

- Restructured office of program approval and review – Streamlined new program development and approval process.
- Revitalized program review process – Upgraded program reviews with external reviewers to emphasize quality and reputation of UIC.
- Key input to on-line programs for Continuing Studies and Global Campus – Quality control of new programs developed for on-line delivery.
- International program development – Academic development of multi-institution and dual degree programs with international partners.
- Developed joint program in Forensic Science in collaboration with Illinois State Police.

Accreditation and Assessment:

- Spearheaded ten-year reaccreditation of UIC by HLC-NCA – Designed the Self Study preparation process and coordinated all aspects of the Peer Evaluators visit, resulting in a clean ten-year reaccreditation for UIC.
- Structured campus-wide process for assessment of student learning outcomes – Designed and coordinated a new campus-wide assessment process. Established support structures and processes enabling units to carry out assessment effectively.
- Accreditation of UIC’s Distance Learning programs – Coordinated request to NCA for open stipulation for distance learning programs.

Interdisciplinary Studies – Centers and Institutes:

- Developed administrative and resource models and templates for inter- and multi-disciplinary Centers and Institutes – e.g. UIC Cancer Center, Learning Sciences Research Institute, Center for Clinical and Translational Science, Great Cities Institute, Institute for Research into Race and Public Policy.
- Reorganized existing Centers and Institutes – “culled” the herd of existing centers and institutes to emphasize quality and alignment with UIC’s mission.

Faculty:

- Chaired All Campus Promotion and Tenure Committee.
- Inaugural Chair of Campus Conflict of Interest Committee.
- Campus Committee on Classified Research.
- Nomination of faculty for national recognition awards.

Research Development:

- Built research group in High Energy Nuclear Physics. Over \$6M in funding.
- Negotiated joint hires with national laboratories and bridging funds for new hires.
- Recruited new faculty in diverse areas of scholarship. Winners of DoE OJI, NSF Career and Sloan awards.
- Developed Program and Chaired 2010 Seed Grant Award Committee.
- Member of Steering Committee for UIC's Clinical Translational Research Proposal and Seed Grant Program.

MAJOR COMMITTEE ASSIGNMENTS:

IIT:

Deans Council
IIT Strategic Planning Committee
Architectural Review Committee
Chair “Distinctive Education” Working Group
College of Science and Letters Strategic Planning Group
Search Committee for Dean of Armour College of Engineering (Chair)
Search Committee for Chair of Chemical and Biological Engineering (Chair)
Search Committee for Chair of Biomedical Engineering (Chair)
Search Committee for Director of National Center for Food Safety Technology.

UIC:

University

Planning for Global Health and Development at UIC (Co-Chair)
Planning for Environmental Science at UIC
Strategic Thinking for Information Technology at UIC (Co-Chair)
Strategic Thinking on Diversity at UIC (Co-Chair)
Institute for Patient Health Safety Excellence Steering Committee
Center for Clinical Translational Research Steering Committee
Health Sciences Policy Council
UIC Planning Council
Campus Resource Planning Task Force (Chair)
Strategic Facilities Planning Working Group
UIC Mission Update Task Force (Chair)
UIC 2010 Interdisciplinary Seed Grant Selection Committee (Chair)
UIC Peer Group Evaluation Committee (Chair)
Search Committee for Assistant Vice President for Budget and Planning
Search Committee for Vice Provost for Resource Planning and Management (Chair)
Committee on UIC Centers and Institutes (Co-Chair)
UIC Development Steering Committee
UIC Campus Master Plan Coordinating Committee
UIC Re-Accreditation Steering Committee (Co-Chair)
Program Assessment Team (Chair)
Provost’s Management Team
UIC 2010 Committee (Co-Chair)
Standing Committee on Classified and Restricted Research
Campus Conflict of Interest Committee (Chair)
All Campus Promotion and Tenure Committee (Chair)
Ad Hoc Committee to Review Head of UIC Biology Department
Illinois Board of Higher Education – Internal Review of Earth and Environmental Sciences Department

Center Seed Funding Committee

Department

Departmental Advisory Committee

Education Policy Committee

Recognition Committee (Chair)

Computing and Shop Oversight Committee

Preliminary Examination Committee

Search Committee for Electronics Project Coordinator

Search Committee in High Energy Nuclear Physics (Chair)

Search Committee in Hadronic Theory (Chair)

Search Committee in Condensed Matter and Bio-Physics

Search Committee in Condensed Matter and Particle Physics (Chair)

Search Committee in Condensed Matter, Particle and Bio-Physics (Chair)

Argonne National Laboratory:

ALD Physical Research - Hiring and Promotions Committee – Physical Research (Chair)

Oxford University:

Department

Policy and Planning Panel

Departmental Advisory Committee

Principal Investigator and Group Leader – Nuclear Physics

College

Governing Body of Lady Margaret Hall

Search Committee for Fellowship in Computer Science

Yale University:

Department

Qualifying Examination Committee

Graduate Admissions Committee

External Committees and Positions:

Board of Directors, Fermilab Research Alliance LLC

Accreditation Review Grand Canyon University (HLS-NCA)

Accreditation Review Western Michigan University (HLC-NCA)

Accreditation Review Kettering University (HLC-NCA)

Accreditation Review New Mexico Highlands University (HLC-NCA)

Review of Nuclear Physics Research Program, Yale University (DoE)

Accreditation Review A T Still University of Health Sciences (HLC-NCA)

Review of Nuclear Physics Program, University of Washington (DoE)

“Red Team” Review of FRIB Initiative (ANL)
“Pink Team” Review of FRIB Initiative (ANL)
Review of National Laboratory Heavy Ion Physics Programs (DoE Office of Science)
Higher Learning Commission – Accreditation Pathways Design Think Tank
Higher Learning Commission – Services Development and Strategic Planning Group
NSF SBIR Review Panels
Higher Learning Commission - North Central Association – Peer Reviewer
DoE Office of Science – Committee of Visitors
Star TOF Upgrade Review (US DoE)
NSF Nuclear Physics Review Panel
RHIC Long Range Planning Group (BNL)
RHIC Detector Advisory Committee (BNL)
Advisory Committee to Physics Chair - Center for Experimental Nuclear and
Astrophysics (University of Washington)
Project Manager – RHIC PHOBOS Experiment
Annual RHIC Program Review – 2001 (US DoE)
Editorial Board - Ann. Rev. Nuclear and Particle Science
G0 Experiment Review (Thomas Jefferson Lab, Newport News, VA)
Site Review Committee - NSCL, Michigan State University (NSF)
Spokesman and Project Manager - APEX Experiment
Assessor, Review of RSPS, Australian National University
SNO-Neutral Current Detector Review Committee (US DoE)
Series Editor “IOP Series in Fundamental and Applied Nuclear Physics”(IOP UK)
Physical Review C, Publications Oversight Committee Task Force (AIP)
U.S. Correspondent - NuPECC News
GAMMASPHERE Technical Review Committee (US DoE)
Program Committee (APS, Division of Nuclear Physics)
Consulting Editor for Nuclear Physics (IOP UK)
Nuclear Physics Committee (Science and Engineering Research Council UK)
Visiting Committee for Nuclear Physics – Glasgow University
Program Committee (Hollifield Heavy Ion Research Facility ORNL)
DOE/NSF Long Range Planning Group for Nuclear Science
Program Committee (NSF Daresbury Laboratory UK)
Publications Committee (APS, Division of Nuclear Physics)
Program Advisory Committee (ATLAS Facility ANL)
Program Advisory Committee (Van de Graaff Facility BNL)
Reviewer for US DoE, NSF, SERC & ESPRC (UK), ARC (Australia)
Reviewer for PRL, PRC, Nucl.Phys. J.Phys.
Advisory and Organizing Committees for many Conferences and Workshops
External Examiner at Liverpool, Surrey, Strasbourg and Australian National Universities

RESEARCH FUNDING:

UIC:

PI - Heavy Ion Nuclear Physics Research at UIC - DoE - \$449,000 (1994-97), \$850,000 (1997-2000), \$1,338,000 (2000-2003), \$1,355,000 (2003-2007), \$1,683,000 (2007-2010)

US PI – Joint US-Japan Seminar on Clustering in Nuclear and Mesoscopic Systems - NSF - \$14,000 (1995)

PI – Construction of PHOBOS Multiplicity and Vertex Detector – DoE BNL - \$198,000 (1998-2001)

PI – Salary Support for Dr. Rachid Nouicer – DoE BNL - \$57,000 (2002-2003)

Oxford University:

PI - Consolidated Grant for Nuclear Physics UK SERC - £200,000 (1985-1986)

Yale University:

Co-PI on WNSL Nuclear Physics Grant – DoE

TEACHING EXPERIENCE:

UIC:

Introductory Physics for Science Majors I, II and III,
Honors Introductory Physics I and II,
Non-Calculus Introductory Physics,
Nuclear and Particle Physics.

CETL Teaching Recognition Award – 2003

Oxford University:

Fundamentals of Electronics,
Nuclear Physics,
College Tutorial Courses on Entire Undergraduate Curriculum.

Yale University:

Introductory Physics for Science Majors,
Physics for Non-Scientists,
Introduction to Modern Physics,
Nuclear and Particle Physics,
Graduate Nuclear Physics.