

# Curriculum Vitae

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# Curriculum Vitae: Henry R. Glyde

## 1 Professional and Research Experience

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**EDUCATION:** B.Sc., Physics, University of Alberta, 1960  
D. Phil., Physics, Oxford University, 1964  
CIBA Fellow, Université Libre de Bruxelles, Belgium, 1964-65

### PROFESSIONAL AND RESEARCH EXPERIENCE:

2012– Unidel Professor, Department of Physics and Astronomy, University of Delaware  
1991-2012 Professor, Department of Physics and Astronomy, University of Delaware  
2004-2005 Interim Chair, Dept of Computing and Information Sciences, University of Delaware  
1994–2000 Professor and Chair, Department of Physics and Astronomy, University of Delaware  
1989–1991 Professor and Chair, Department of Physics, University of Alberta  
1982–1989 Professor and Chair, Department of Physics, University of Delaware  
1982–1989 Adjunct Professor, Department of Physics, University of Ottawa  
1975–1982 Associate Professor and Professor, University of Ottawa  
1971–1972 Project Officer, International Development Research Centre, Ottawa,  
1969–1975 Physicist, Atomic Energy of Canada, Chalk River, Ontario  
1965–1969 SERC Fellow, University of Sussex, United Kingdom

### VISITING POSITIONS:

Guest Scientist:	Institut Laue-Langevin (ILL) Grenoble, France	July 2010-July 2011, Summers 2009,2008, Summer 2007, Feb-Aug 2006, Mar-Aug 2004, May-Aug 2002, Apr-Aug 2001 and 1997, Jan-Aug 1986, Fall 1981, Summer 1976, 1975
Collaborator and Lecturer:	Chulalongkorn University Bangkok, Thailand	2008, 2004, 1998, 1993, 1991, 1990 annually 1987-9, 1979-85, 1971-72 (1 year)
Collaborator:	Brookhaven National Lab	Summer 1977; Summer 1983
Visiting Professor:	Atomic Energy of Canada Ltd.	Summer 1978
Research Visitor:	Rutgers University	Summer 1971
Guest Scientist:	National Research Council Canada	Summer 1968

### HONORS AND AWARDS:

2001 Wheatley Award, American Physical Society  
1988 Fellow, American Physical Society  
1980 Award for Best Condensed Matter Physics Paper  
Published in Canadian Journal of Physics 1980  
1963 NATO-NRC Special Scholarship  
1960 Rhodes Scholar

## RECENT HIGHLIGHTS:

2012 Distinguished Service Award, Neutron Scattering Society of America  
May 2010 and March 2011 Phys. Rev. B papers selected as “Editors suggestion to read”  
2010 Appointed “Distinguished Guest Scientist”, Institut Laue Langevin 2010  
2010 Selected as “Outstanding Referee”, APS Journals, 150 of 40,000 referees selected  
2010 Appointed to Science review committee, Spallation Neutron Source, ORNL

## 2 Scientific Research Program: Sketch of Topics

In this section I sketch the spectrum of physics investigated, 1964-2012. This began as applied experimental materials science, defects and diffusion in solids, to origins of binding and phonon excitations in solids, to fundamental theory of many-body liquids and solids, to the theory of quantum liquids (chiefly liquid helium) and most recently to neutron scattering measurements of the Bose-Einstein condensation and the fundamental excitations of quantum liquids and solids at major international neutron facilities in the USA and Europe.

This represents a wide spectrum of fields in Condensed Matter Physics, both theory and experiment, with a general progression from applied materials science to fundamental physics. The topics are sketched below in reverse time order.

### 2.0.1 PERIOD: 1998 - 2012

**Research Topics:** In the past several years we (see publications: 1-65) have been making benchmark measurements of Bose-Einstein condensation (BEC) in liquid and solid  $^4\text{He}$ . BEC is the origin of both superconductivity in metals and of superflow in liquids. The goal is to understand superconductivity and superfluidity. BEC in the liquid as a function of temperature, pressure, confinement to nanoscales in disorder and to two dimensions (2D) on surfaces have and is being determined. Many superconductors are effectively 2D systems and disordered. This is very fundamental physics and BEC is uniquely revealed by neutrons. Our measurements are setting the world standard.

This experimental program in neutron scattering is conducted through collaborations at the ISIS facility, UK, at the Institut Laue Langevin in France and most recently at the Spallation neutron source at Oak Ridge National Lab, Tennessee. We also have a second program, chiefly at ILL, revealing the nature of the fundamental excitation in liquid and solid  $^4\text{He}$  (the solid is also apparently superfluid). The nature of the excitations are also determined by BEC and reveal critical information on the origin of superflow. Again these excitations are uniquely observed using neutrons.

**Highlights:** This work is published predominantly in the prestigious US journals, Physical Review and Physical Review Letters. In 2004 we had three letters in PRL which is quite exceptional. This work is also featured in as neutron facility Science Highlights (ILL,ISIS and SNS). It has been continuously supported by the Basic Energy Sciences Office of the Department of Energy (DOE) (2003-2015) and by a Focussed Research Group supported by NSF (2001-2004). DOE funding is renewed to 2015.

**Publications:** 1-65

**Students:** S. O. Diallo (Expt.), J. L. DuBois, A. R. Sakel, A. A. Shams (Theory; variational, diffusion and path integral Monte Carlo). Current PhD student Derya Vural is working on proteins investigated by neutrons.

**Post Docs:** O. Plantevin, F. Albergamo, and J. V. Pearce (Expt., all stationed at ILL), Collaborations with colleagues at ILL, ISIS and SNS.

### **2.0.2 PERIOD: 1986 - 1998**

**Research Topics:** Many-body theory of Fermi liquids, semiconductors and electron states in disorder, theory of neutron scattering at high momentum transfer. Flux lines in superconductors (All theory). Start of experimental program in neutron scattering at ISIS Facility, UK and Institut Laue Langevin, (ILL), France. Topic: Neutron studies of Bose-Einstein condensation (BEC) and excitations in bulk liquid  $^4\text{He}$  and  $^3\text{He}$

**Publications:** 65-121

**Students:** B. Tanatar, C. W. Greeff (Theory)

**Post Docs:** B. E. Clements, E. F. Talbot, M. Boninseni (Theory), R. T. Azuah (Expt., resident at ISIS), Collaborations with Thai colleagues, Collaborations at ILL and ISIS.

### **2.0.3 PERIOD: 1976 - 1986**

**Research Topics:** Anharmonic lattice dynamics. First principles theory of Fermi fluids. Semiconductors and electron states in disorder. Theory of neutron scattering at high momentum transfer (in response to new neutron scattering facilities, IPNS, ISIS). (All theory).

**Publications:** 121-159

**Students:** S. H. Taole, W. Sritrakool, L. K. Moleko, B. Tanatar

**Post Docs:** T. M. Hakim, Collaborations with Thai colleagues.

### **2.0.4 PERIOD: 1969 - 1976**

**Research Topics:** Lattice dynamics, interatomic potentials, anharmonic effects in metals and insulators. Theory of solid helium. (All theory).

**Publications:** 159-176

**Highlights:** Contributed to the basic development of the self consistent phonon theory with applications to highly anharmonic solids and to the theory of solid helium.

### **2.0.5 PERIOD: 1960 - 1969**

**Research Topics:** Materials science, diffusion in solids, mass spectrometry.

**Publications:** 176 - 191

**PhD Thesis:** 1964, "Mass Spectrometric Studies of Diffusion in Solids".

Measurements of defects and diffusion of rare gases in metals which has application in the nuclear power industry (fission products produced in nuclear power stations are rare gases) were made. Also theory of diffusion in simple solids where first principle theory can be carried out was made.

A seminal Rev. Modern Phys. paper (Pub 187) showed that competing theories of diffusion are really the same and careful ab initio calculations of diffusion coefficients that agree with observed values.

### 3 External Support of Research

#### 3.1 Current External Support of Research

##### 1. Experimental Program at Neutron Facilities (1987- )

My experimental neutron scattering program is conducted at the best, major neutron facilities in the world, the Spallation Neutron Source at Oak Ridge National Laboratory, Tennessee (since 2009), the Institut Laue Langevin (Grenoble, France) (since 1987) and the ISIS Facility, Rutherford Appleton Laboratory (Oxford, UK) (since 1990). I have no laboratory at UD. The experiments are funded chiefly by the facilities themselves, the equipment, the technical support, the neutron instruments. Each experiment is funded by the facility on the basis of a written, reviewed and “funded” scientific proposal to the facility. With my collaborators, I currently conduct 4-5 experiments per year at a cost of approximately \$ 100 K per experiment. This support by facilities based on competitive proposals constitutes my core research support.

In addition I hold grants and contracts through the University of Delaware which funds graduate students, post doctoral associates and travel to experiments and scientific meetings. But since most laboratory support is from facilities, the direct grants through Delaware are not large. Since 2003, the Department of Energy (DOE), Basic Energy Sciences, has funded my program continuously. This funding has been renewed to February 2015.

##### 2. Grants and Contracts through the University of Delaware (Sole PI on all grants except as marked)

Agency*	Amount	Period	Title
DOE	\$ 450,000	2012 - 2015	Neutron Scattering Studies of Classical and Quantum Fluids in Porous Media
DOE	\$ 450,000	2009 - 2012	Neutron Scattering Studies of Classical and Quantum Fluids in Porous Media
NSF	\$5,000,000	2006 - 2011	Member IGERT: Sustainable Energy from Solar Hydrogen
DOE	\$ 450,000	2006 - 2009	Neutron Scattering Studies of Classical and Quantum Fluids in Porous Media
DOE	\$ 390,000	2003 - 2006	Neutron Scattering Studies of Classical and Quantum Fluids in Porous Media
NSF	\$ 15,000	2002	Supplement: Physics in Africa
NSF	\$ 60,000	2005	Supplement: FRG, Neutron Scattering
SURA	\$ 25,000	2002	SURA Consortium in Neutron Scattering

NSF	\$ 500,000	2001 - 2004	Focused Research Group, Neutron Scattering (Co-PIs: John Larese, Oscar Vilches)
NSF	\$ 75,000	2000 - 2001	Funds for LWTS-SNS Planning
NSF	\$ 180,000	1999 - 2002	Disordered Quantum Systems
DE	\$ 303,000	1998 - 2001	Graduate Assistance in Areas of National Need
NSF	\$ 120,000	1996 - 1999	Disordered Quantum Systems (Co-PI: Massimo Boninsegni)
DE	\$ 690,000	1995 - 1998	Graduate Assistance in Areas of National Need
NSF	\$ 15,250	1994 - 1997	Neutron Scattering, Quantum Liquids
NSERC	\$ 126,000	1989 - 1992	Dynamics of Liquids and Solids (Alberta)
DOE	\$ 262,000	1987 - 1990	Neutron Studies of Liquid and Solid Helium
NATO	\$ 6,500	1987 - 1992	Excitations in Quantum Liquids
NSERC	\$ 30,000	1985 - 1988	Dynamics of Liquids and Solids (Ottawa)
DOE	\$ 195,000	1983 - 1986	Neutron Studies of Liquid and Solid Helium
NSERC	\$ 10,000	1983 - 1984	(to the University of Ottawa)
NSERC	\$ 68,000	1980 - 1983	(to the University of Ottawa)
CIDA	\$ 445,000	1980 - 1984	(to the University of Ottawa)
CIDA	\$ 27,000	1979 - 1980	(to the University of Ottawa)
NSERC	\$ 19,000	1979 - 1980	(to the University of Ottawa)

\* DE - Department of Education (US)

NSF - National Science Foundation (US)

DOE - Department of Energy (US)

NSERC - Natural Science and Engineering Research Council of Canada

CIDA - Canadian International Development Agency

## 4 Graduate Students Advised

A key ingredient of successful graduate education, especially in theoretical physics, is a sound grounding in fundamentals, a broad exposure to a variety of topics and most importantly launching the graduate students into post doctoral positions in excellent research institutions. For example, Carl Greeff and Jon DuBois were post doctoral associates in the chemistry department at UC Berkeley (ranked no. 1 in the USA), Bilal Tanatar was a PD with D. M. Ceperley (at that time no. 1 in the USA in computational Monte Carlo) at the University of Illinois, Urbana Champaign,

Keivan Esfarjani at University of Washington St. Louis, Asaad Sakhel was offered two excellent positions but elected to return to Jordan. As an advisor, I have focussed on advising few students well.

### Graduate Students Who Have Graduated

1. Simeon H. Taole, Ph.D. (1979), University of Ottawa , *taoles@uniwest.ac.za*  
Present and Recent positions: Professor, Dean and Acting Executive Dean, Faculty of Science and Technology, University of North West, South Africa  
<http://www.physics.udel.edu/~glyde/students/CVTAole.pdf>
2. Lebohang K. Moleko, Ph.D. (1983), University of Ottawa, *lebohang.moleko@alumni.uottawa.ca*  
*lkmoleko@lhwc.org.ls*  
Present position: Chief Delegate-Government of Lesotho, Lesotho Highlands Water Commission(LHWC) (The largest water project in Africa) Former positions: Head, UN Peace Keeping Force in Ethiopia-Eritrea (2007-2010)  
Ambassador to the United Nations (2005-2007), to the USA (2002-2005), and to China (1998-2002) for Lesotho;  
Professor and Head, Department of Physics, University of Lesotho  
<http://unmee.unmissions.org/Default.aspx?tabid=60>  
<http://www.physics.udel.edu/~glyde/students/CVMoleko.pdf>
3. Wichit Sritrakool, Ph.D. (1983), University of Ottawa, *wichit.s@chula.ac.th*  
Present position: Associate Professor of Physics, Chulalongkorn University, Bangkok, Thailand  
Member: Forum for Theoretical Science, Faculty of Science, Chulalongkorn University  
Member: The Abdus Salam International Centre for Theoretical Physics (ICTP)  
<http://pioneer.netserv.chula.ac.th/~swichit/>
4. Bilal Tanatar, Ph.D. (1987), University of Delaware, *tanatar@fen.bilkent.edu.tr*  
Present position: Professor, Department of Physics, Bilkent University, 06533 Ankara, Turkey  
Recent position: Professor and Chair, Department of Physics, Bilkent University  
Member: National Academy of Turkey Originator:: Tanatar-Ceperley exchange-correlation function used world wide. First position: Post Doctoral Associate, Department of Physics, University of Illinois at Urbana-Champaign (with David Ceperley)  
<http://www.physics.bilkent.edu.tr/index.php/people/faculty-members/bilal-tanatar>
5. Carl Greeff, Ph.D. (1987), University of Delaware, *greeff@lanl.gov*  
Present position: Staff Scientist, Theoretical Division T-1, Los Alamos National Laboratory, Los Alamos, New Mexico  
First position: Post Doctoral Associate, Department of Chemistry, University of California, Berkeley (with William Lester)  
  
<http://goo.gl/Cn76s>



6. Kievan Esfarjani, Ph.D. (1991), University of Delaware, *kei1@mit.edu* Advised jointly with Sui Tat Chui Present Position: Research Scientist, Department of Mechanical Engineering, MIT, Cambridge, Mass.  
Former position: Professor, Department of Physics, Computational Condensed Matter Group, Sharif University of Technology (MIT of Iran), Tehran, Iran  
Former position: Associate Professor, Laboratory of Materials Design by Computer Simulation, Institute for Materials Research, Tohoku University, Sendai, Japan  
First Position: Post Doctoral Associate, Department of Physics, Washington University, St. Louis. <http://www.physics.udel.edu/~glyde/students/CVKei1.pdf>  
<http://web.mit.edu/kei1/www/index.html>
7. Jonathan L. DuBois, Ph.D. (2002), University of Delaware, *dubois9@llnl.gov*  
Present position: Staff Scientist, Lawrence Livermore National Laboratory, California  
First position: Post Doctoral Research Associate, Department of Chemistry, University of California, Berkeley (with K. Birgitta Whaley)  
<http://qsg.llnl.gov/Site/JonathanDuBois.html>  
<http://www.linkedin.com/in/jonathandubois>
8. Asaad R. Sakhel, Ph.D. (2004), University of Delaware, *sakhel@hotmail.com*  
First and present position: Assistant Professor, Al-Balqa Applied University, Aman, Jordan (site of SESAME synchrotron light source)  
<http://www.linkedin.com/pub/asaad-sakhel/1/a65/1a0>  
<http://goo.gl/Pu4o0>
9. Souleymane O. Diallo, Ph.D. (2007), University of Delaware, *sdiallo@ameslab.gov*  
Present Position: Instrument scientist, Spallation Neutron Source. Oak Ridge National Laboratory, TN  
First position: Post Doctoral Associate, Neutron & X-Ray Scattering Group, Ames Laboratory (DOE), Iowa (with Robert McQueeney)  
<http://www.linkedin.com/in/sdiallo>
10. Wattana Lim, Ph.D. (2008) Chulalongkorn University, advised Spring and Summer 2007 at UD  
Student in Chulalongkorn University, Thailand, Ph.D. program supported by Royal Jubilee Thai Research Abroad program at Delaware.
11. Ali A. Shams, Ph.D. (2010) University of Delaware  
Present position: Risk Analyst: Polar Securities, Toronto, ON, Canada, *aashams@gmail.com*  
[http://www.polarsec.com/bio\\_ops.php](http://www.polarsec.com/bio_ops.php)

### Graduate Students: Current and Recent

1. Derya Vural, MS. (2010) University of Delaware, PhD anticipated 2013 *deryavur@udel.edu*  
Derya has had two research experiences at ILL, Grenoble and is currently collaborating at Oak Ridge National Lab in the computational biology group of Jeremy Smith. Supported by Department of Energy  
<http://web.physics.udel.edu/about/directory/graduate-student/derya-vural>
2. Som Nath Dahal, Ph.D. graduated 2011  
Dept. advisor with Christiana Honsberg, Electrical Engineering  
Supported by Professor Honsberg

### Post Doctoral Associates

1. Toufic Hakim, University of Delaware (1987-1988), *thakim@aapt.org*  
Present position: Managing Partner at Group i&i Consultancy, LLC and Principal Grants & Research Advisor at Grantuoso.org  
<http://www.linkedin.com/pub/toufic-hakim/8/93a/105>
2. Emile F. Talbot, University of Delaware (1985-1989), *talbote@aecl.ca*  
Present position: Staff Scientist, Atomic Energy of Canada Ltd., Sheridan Park, Ontario
3. Bradford E. Clements, University of Delaware (1989-1991), *bclements@lanl.gov*  
Present position: Acting Deputy Group Leader, T-1, Los Alamos National Laboratory, Los Alamos, New Mexico <http://goo.gl/Cn76s>  
[http://www.lanl.gov/orgs/adtsc/publications/science\\_highlights\\_2011/docs/7MatSciPDFs/clementsGlass.pdf](http://www.lanl.gov/orgs/adtsc/publications/science_highlights_2011/docs/7MatSciPDFs/clementsGlass.pdf)
4. Massimo Boninsegni, University of Delaware (1996-1998), *m.boninsegni@ualberta.ca*  
Present position: Professor and Canada Research Chair, University of Alberta, Edmonton  
<http://www.ualberta.ca/~massimob>
5. Richard T. Azuah, University of Delaware and ISIS Facility, (1998-1999), *richard.azuah@nist.gov*  
Present position: Staff Scientist, NIST Center for Neutron Research, Gaithersburg, MD
6. Oliver Plantevin, University of Delaware and Institut Laue Langevin, France  
Present position: Faculty Member, Universite de Paris Sud (site of LLB and Soleil Facilities)  
<http://goo.gl/pwvbf>
7. Francesco Albergamo, University of Delaware and Institut Laue Langevin, France (2001-2003), *albergam@esrf.fr*  
Present position: Research Associate, ESRF, Grenoble, France

8. Jonathan V. Pearce, University of Delaware and Institut Laue Langevin (2003-2005),  
*jonathan.pearce@npl.co.uk*  
 Present position: Staff Scientist, National Physical Laboratory, Teddington, UK  
<http://www.npl.co.uk/news/npl-trains-nasa-scientists>

## 5 Service to the Scientific Community

### Selected service Contributions:

- 2011- Chair, Selection committee, Shull Prize of the Neutron Scattering Society of America. (A prize established to honor C. Shull who won the 1994 Nobel Prize in Physics for neutron scattering science)
- 2010- Appointed to Science Review Committee of the Spallation Neutron Source (SNS), Oak Ridge National Laboratory and Chair of the Hard Matter Subcommittee.
- 2006-09 American Physical Society (APS) representative to American Liaison Committee to the International Union of Pure and Applied Physics (IUPAP)
- 2004 Chair, Committee for International Scientific Affairs, APS (see attached letter, last page of this CV)
- 2005 Member, Centre National de la Recherche Scientifique (CNRS)/Commissariat a l'Energie Atomique (CEA) Assessment Committee of the Laboratoire Louis Brillouin, Paris
- 2002-04 Chair and Chair-Elect, Forum for International Physics, APS
- 2000-04 Member, Committee for International Scientific Affairs, APS
- 1999-01 Member, Board of Trustees, Southeastern Universities Research Association (SURA)
- 1999-00 Host and Joint organizer: Two Workshops at University of Delaware on the Second Target Station for the SNS, ORNL
- 1999-02 Executive Committee, Neutron Scattering Society of America
- 1993-95 Executive Committee, Neutron Scattering Society of America
- 1998- Member, Delaware Committee of Selection, Rhodes Scholarship Trust
- 1992-97 Secretary, Delaware Committee of Selection and member, Middle Atlantic States Regional Committee of selection, Rhodes Scholarship Trust
- 1994-96 Chair, R and D Advisory Panel to Atomic Energy of Canada
- 1991-93 Vice Chair, R and D Advisory Panel to Atomic Energy of Canada
- 1991-92 Chair, Founding Committee, Neutron Scattering Society of America
- 1989-91 President, Canadian Institute of Neutron Scattering
- 1989-91 Chairman and Vice chairman, Division of Condensed Matter Physics, Canadian Association of Physicists
- 1988-91 Member, Advisory Committee, National Program on High  $T_c$  Superconductivity, Thailand
- 1988-89 Secretary, Delaware Committee of Selection, and member, Middle Atlantic States Regional Committee of selection, Rhodes Scholarship Trust

- 1986–1989 Member, Scientific Program Advisory Committee: IPNS, Argonne National Laboratory and LANSCE, Los Alamos National Laboratory
- 1985–1990 Member, Physics & Astronomy Advisory Committee, NSERC, Canada
- 1981–1985 Member, Editorial Board, Canadian Journal of Development Studies, Ottawa
- 1981 Principal Author, Future Opportunities for Condensed Matter Research in Canada: Policy Paper for NSERC contracted to the Canadian Association of Physicists
- 1980–1982 Member, International Relations Committee, NSERC, Canada
- 1980–1982 Member, Board of Directors, Institute for International Development and Cooperation, University of Ottawa
- 1979–1985 Originator and Coordinator - Link between Chulalongkorn and Ottawa Universities in Semiconductor Research, funded (\$0.5 million) by the Canadian International Development Agency (CIDA)
- 1975–78 Chair, Physics and Society Committee, Canadian Association of Physicists (CAP)
- 1975–76 Member, Science Policy Committee, (CAP)
- 1973–74 Chairman, Theoretical Physics Division, (CAP)

**University of Delaware, NSF and Other Service:**

- (2006) Established and endowed the Daicar-Bata Prizes (2)(\$ 2500 each) for (1) Best Research paper and (2) highest GPA in graduate program.
- (2005) Member, NSF Site Panel on DANSE Proposal (ORNL).
- (2002) Member, NSF Site Panel on LENS Proposal (Indiana).
- (2002-4) Lobbying in Washington for the American physical Society.
- (2004) Chair, Committee of Evaluation, Chair of Department of Biosciences.
- (2000) Chair, Selection Committee for Chair of Geography Department.
- (1998) Chair, Selection Committee for Chair of Computing Science Department.
- (1992) Chair, Selection Committee for Chair of Mathematics Department.
- (1983-85) Member, Dean’s Advisory Committee.  
University of Ottawa and AECL:
- (1973-75) Vice Chairman, Society of AECL Professional Employees
- (1976-82) Seminar and Colloquium Chairman, Physics, University of Ottawa

**Organization of Conferences:**

- (1) Member of Organizing and Advisory Committee:
  - ULT2008 Frontiers of Low temperature Physics, August 2008
  - International Workshop on Condensed Matter Theories, December 2007
  - Topics in Semiconductor Physics, Bangkok, January 1987
  - Banff Conference on Quantum Solids and Fluids, October 1987
  - Quantum Fluids and Solids Symposium, Sanibel, 1977
  - International Quantum Crystals Conference, Fort Collins, 1977
  - International Quantum Crystals Conference, Banff, 1971
  - International Quantum Crystals Conference, Aspen, 1969
  
- (2) Director, NATO Advanced Study Institute on “Quantum Solids and Fluids,” August 18-30, 1974, Ontario, Canada

## 6 Highlights of Service to Delaware

### Chair of Department 1982-8:

Hired as Department Chair in 1982, a core highlight of the first term was the hiring several outstanding assistant professors such as John Beamish, George Watson and Timothy Ziman. They moved the department vigorously forward for several years but were all attracted away eventually to more senior positions (e.g. George Watson as Dean). In collaboration with Bartol, a new wing to Sharp Lab was constructed in 1984 which provided much needed space for a growing Department. Classrooms in Sharp Lab were also converted for Department space. Important reforms in the department were instituted, such as establishing a mechanism to ensure that support for graduate students was based on their academic performance (with an annual review of performance) rather than on the inevitable fluctuations of individual grant support. These reforms survive today. As a signal of success, renewal as Chair in 1987 for a further five years was accompanied by three new faculty positions, two at the associate professor level. George Hadjipanayis was subsequently hired in one of these positions. This Chair period ended with departure as to the University of Alberta as Chair. The years 1982-1988 were seen as an important period of growth and sound management with major increase in external research funding of research.

### Chair of Department 1994-2000:

In the second term as department chair, 1994-2000, essentially all of the senior faculty members in the Department retired, those hired in the national growth period of the 1960s. This required a major hiring program. Many of the faculty that make up the Department today were hired as assistant professors during this period. The average age of the department decreased approximately 15 years. Department plans for Development were prepared, fully discussed and implemented. This was similarly seen as a period of important growth in research and education in the Department.

### Interim chair CIS Department 2004-5 :

In 2004 I was asked to serve as Interim Chair of the Computing and Information Sciences Department, a time when the CIS Department was at loggerheads with the Administration, chiefly over space issues. As interim Chair, a large amount of space was acquired for the CIS department in Smith Hall, offices and some converted class rooms. A workload agreement between

the Department and University that had been a stumbling block was concluded. There was a successful new hire. Critically, harmony was established and a new internal Chair for the Department for next five years was appointed. This was regarded as a highly successful year and successful resolution of problems by both the Department and the University Administration.

I served on a wide variety of committees in the University, especially chairing search committees for department chairs. I also served on much less known committees for the Office of Research assessing possible cases of plagiarism and academic wrong doing.

#### **Committees of Selection, Rhodes scholars:**

In the years 1987-89, and 1992-98, HRG served as the Secretary of the Delaware Committee and a Member of the District Committee of Seven States that elects Rhodes Scholars. Candidates were sent from the State Committee level to the District Committee where the selection of four scholars to go to Oxford was made. The years 1992-98 saw a number of Delaware residents and UD students elected as scholars. The nurturing of candidates and the elections and brought prestige to UD. Prior to 1987, a Rhodes Scholar outside of Delaware had been serving as Delaware State secretary. Committee members usually resign at age 60.

## **7 Highlights of Service to the Scientific Community**

### **Institution building and Development of Science**

Four service and institution building contributions that have brought major recognition to Delaware are highlighted.

#### **Science Review Committee and DOE Referee service**

As a member of the Science Review Committee of the SNS and Chair of a Subcommittee (2010- 2013), I review and write a report on approximately 20 proposals to conduct experiments at SNS (cost  $\sim$  \$ 100 K each) and attend a panel meeting (2 days) where typically 70 - 80 proposals (reviewed by others) are considered and 10-15 selected twice per year. This is a major referee undertaking. The Chair also reports on the review structure and operations and on the general quality of proposals. I also review approximately 10 proposals per year in the DOE young investigator program and another 10 in their graduate student fellowship program. I will be on an NSF panel in 2012.

#### **APS study, Access to Major International X-Ray and Neutron Facilities**

Secondly, in 2009 a major study and report entitled "Access to Major International X-Ray and Neutron Facilities", by Henry Glyde (Chair), Robert Briber and Sunil Sinha was completed for the American Physical Society. This report can be found on the web at:

<http://www.aps.org/programs/international/resources/facilities.cfm>. The report surveys major X-ray and Neutron facilities world wide: the terms of access to them, why they were viewed by scientific users as good or not so good, number of users and many other factors. The survey and report was three years in the writing including interviews with directors of facilities world wide. The goal was to make facilities aware of practices world wide especially in Europe which was leading the US in neutron facilities. This report was endorsed by all facility user organizations in the USA and has had a major impact on operations and priorities in the USA and world wide. For example, the top priority established recently at the Spallation Neutron Source at Oak Ridge National Laboratory is "instruments and sample equipment" rather than beam intensity, a priority identified with successful facilities in the Report. The report has been widely reviewed

(e.g. see "Synchrotron Radiation News" <http://www.tandf.co.uk/journals/titles/08940886.asp>.) and reported, particularly a plenary talk at a major policy meeting in 2009 in Europe: see <http://www.europeanresearchfacilities.eu/IMG/pdf/HGlyde.pdf>. This major contribution is little known in Delaware.

### **Founding the Neutron Scattering Society of America**

Thirdly, in 1991-2, I chaired the committee that founded the Neutron Scattering Society of America. This was a committee chosen to represent all major neutron scattering facilities in the USA and to represent many disparate interests outside the facilities. The Chair was equally carefully chosen for his skills in bringing conflicting interests together and as someone who would pursue the common good and not promote his own interests. Also experience serving as president of the Canadian Institute for neutron Scattering in 1989-91 was an asset. After several meetings, chiefly in Chicago, a constitution for NSSA was drafted; the society was successfully founded, supported financially by the Department of Energy and NIST and announced in Physics Today and Neutron News. Elections of an executive were held. HRG subsequently served two separate terms on the executive, 1993-96 and 1999-02.

Since 1992, NSSA has grown into a major force. It has a large membership, it holds national scientific meetings every two years, liaises and negotiates with facilities, prepares documents and awards prizes for scientific excellence. This year 2011, HRG Chaired the selection committee for NSSA Shull prize, named after Shull who won the 1988 Nobel prize in physics.

### **Advisory Panel to Atomic Energy of Canada Ltd**

In 1990, the Federal Government of Canada established a Research and Development Advisory panel to the Board of Directors of Atomic Energy of Canada Ltd. AECL builds and services the nuclear reactors for the nuclear power program of Canada and sales abroad. The panel was to advise on all aspects, from new reactor development, through environmental issues, regulatory matters, to nuclear waste management. The panel consisted of engineers, medical doctors and scientists. HRG was the physicist on the Panel. This Panel met several times a year, visited AECL sites in Canada and abroad, addressed specific and general concerns and wrote a widely circulated annual report. HRG was Vice Chair and eventually Chair of the Panel, 1994-96. This was a major and important duty again little known in Delaware. HRG resigned from the Panel in 1996 to concentrate on other matters.

## **8 International Development**

### **Contributions to International Development:**

- 2002-04 Member and Chair, Committee for International Scientific Affairs, American Physical Society (see letter from CISA, last page of this CV)
- 2002-04 Chair-Elect and Chair, Forum for International Physics, American Physical Society
- 2003 Organizer, three hour session on "Physics in Africa" at the Annual American Physical Society, March 2003, Austin, Texas. All speakers were from Africa. Funded by NSF.

- 2001 Wheatley Award, American Physical Society. Citation reads: “For his enduring commitment and multifaceted contributions to the development of physics in Thailand, which include innovative creation of scientific links between North American research universities and Chulalongkorn University, inspiring collaboration with leading Thai physicists, and the marshaling of financial and intellectual resources to establish new regional research centers.”
- 1987-91 Partner and Advisor, “National Program on High Temperature Superconductivity,” Thailand, operated by Chulalongkorn University, funded by US-AID at \$750,000.
- 1980-82 Member, Board of Directors, Institute for International Development and Cooperation, University of Ottawa.
- 1980-84 “Established Institutional Link in Semiconductor Research and Development” between Chulalongkorn University and University of Ottawa funded by Canadian International Development Agency (CIDA) (\$445,000). Research and Development conducted in Ottawa and in Thailand jointly, 1979-86, on this project (e.g. annual visits to Thailand). Established the “Semiconductor Physics Research Laboratory” at Chulalongkorn and initiated first Ph.D. program in Thailand through this project.
- 1980-82 Member, International Relations Committee, NSERC, Canada
- 1979 Pilot Link Project between Chulalongkorn University and University of Ottawa funded for one year (\$27,000).
- 1979 Initiated NSERC supported program to bring Thai physicist, Virulh Sayakanit, to the University of Ottawa for three yearly visits of three months each.
- 1977 Conducted American Physical Society Graduate Student Review project, 1977 Interviewed prospective graduate students in eleven South Asian countries, from Korea to Iran.
- 1971-72 Project Officer, International Development Research Centre. Attended six week workshop on “Science and Technology in Economic Development,” Science Policy Research Unit, University of Sussex, UK. Remainder of year in Science Policy and Development project in Thailand. Taught at Chulalongkorn University.



## 9 Teaching

### Teaching and Course Evaluations: 2002-2008

Time Period	Course No.	Course Topic	Course Rate	Instructor E
Spring 2002	Phys813	Statistical Mechanics	1.58	1.62
Fall 2002	Phys616	Thermodynamics	2.31	2.38
Spring 2003	Phys813	Statistical Mechanics	1.83	1.60
Fall 2003	Sabbatical			
Spring 2004	Sabbatical			
Fall 2004	Phys616	Thermodynamics	2.22	2.33
Spring 2005	Serving as Interim Chair, CIS Dept.			
Fall 2005	Phys838	Advanced Condensed Matter Physics(CMP)	1.60	1.20
Spring 2006	Administrative Leave (following service as Interim Chair, CIS Dept.)			
Fall 2006	Phys310	Engineering Thermodynamics (80 students)	1.95	2.00
Spring 2007	Phys803	Intermediate CMP	1.33	1.33
Fall 2007	Phys310	Engineering Thermodynamics (70 students)	2.73	2.77
Spring 2008	Phys825	Intermediate CMP	1.00	1.50
Fall 2008	Phys208	Electricity & Magnetism (85 students)	2.96	3.89
Spring 2009	Phys828	Special Topics	NA	NA
Fall 2009	Teaching Buyout			
Spring 2010	Phys813	Statistical mechanics (24 students)	NA	NA
Fall 2010	Sabbatical leave			
Spring 2011	Sabbatical leave			
Fall 2011	Teaching Buyout			
Spring 2012	Phys825	Intermediate Condensed Matter Physics		

## 10 Scientific Publications

### List of Publications: Henry R. Glyde

#### Books

EXCITATIONS IN LIQUID AND SOLID HELIUM, 450 pages (Oxford University Press, Oxford, 1994).

#### Scientific Publications

1. BOSE-EINSTEIN CONDENSATION MEASUREMENTS AND SUPERFLOW IN CONDENSED HELIUM. H. R. Glyde. *J. Low Temp. Phys.* (published on line)(2013)

doi:10.1007/s10909-013-0855-0

2. EXCITATIONS OF AMORPHOUS SOLID HELIUM. J. Bossy, J. Ollivier, H. Schober, and H. R. Glyde. *Phys. Rev. B* **86**, 224503 (2012).
3. INTRINSIC MEAN SQUARE DISPLACEMENTS OF HYDROGEN IN PROTEINS. D. Vural and H. R. Glyde *Phys. Rev. E* **86**, 011926 (2012).
4. PHONON-ROTON MODES IN LIQUID  $^4\text{He}$  COINCIDE WITH BOSE-EINSTEIN CONDENSATION. J. Bossy, J. Ollivier, H. Schober, and H. R. Glyde. *Euro. Phys. Lett.* **98**, 56008 (2012).
5. BOSE-EINSTEIN CONDENSATION IN LIQUID  $^4\text{He}$  NEAR THE LIQUID-SOLID LINE. S. O. Diallo, R. T. Azuah, D. L. Abernathy, R. Rota, J. Boronat, and H. R. Glyde. *Phys. Rev. B* **85**, 140505(R) (2012).
6. ATOMIC MOMENTUM DISTRIBUTION AND BOSE-EINSTEIN CONDENSATION IN LIQUID  $^4\text{He}$  UNDER PRESSURE. H. R. Glyde, S. O. Diallo, R. T. Azuah, O. Kirichek, and J. W. Taylor. *Phys. Rev. B* **84**, 184506 (2011).
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8. VIBRATIONAL DYNAMICS OF HYDROGEN IN PROTEINS. D. Vural and H. R. Glyde *Phys. Rev. E* **83**, 031992 (2011).
9. SUPERFLOW IN AMORPHOUS SOLID HELIUM. J. Bossy, H. R. Glyde and T. Hansen. *Institut Laue Langevin Annual Report 2010*, p.74 (2011).
10. THE QUEST FOR BOSE-EINSTEIN CONDENSATION IN SOLID  $^4\text{He}$ . S. O. Diallo, R. T. Azuah, and H. R. Glyde. *J. Low Temp. Phys.* **161**, 258 (2010).
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13. LIMITS ON BOSE-EINSTEIN CONDENSATION IN CONFINED SOLID.  $^4\text{He}$ . S. O. Diallo, R. T. Azuah, O. Kirichek, J. W. Taylor and H. R. Glyde. *Phys. Rev. B* **80**, 060504(R) (2009).
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### Other Publications

1. Article, Origins of the Neutron Scattering Society of America- NSSA, *Neutron News* **24**(1), p. 16 (2013).
2. Invited Editorial, Neutron Scattering Society of America, *Neutron News* **3**(2), p. 2 (1992).
3. Article, Neutron Scattering Society is Founded, *Neutron News* **3**(2), p. 24 (1992).
4. Letter, *Physics Today* **45**(12), p. 15 (1992).
5. Brief to Panel on Neutron Sources, Basic Energy Sciences Advisory Committee, DOE on behalf of the Neutron Scattering Society of America (NSSA), September 1992.

### Explanation of Journal Abbreviations

<i>Ann. Phys.</i>	Annals of Physics
<i>Can. J. Phys.</i>	Canadian Journal of Physics
<i>Condens. Mat. Phys.</i>	Condensed Matter Physics
<i>CRNL</i>	Chalk River Nuclear Laboratories
<i>European Phys. J.</i>	European Physics Journal
<i>Europhys. Lett.</i>	Europhysics Letters
<i>J. Low Temp. Phys.</i>	Journal of Low Temperature Physics
<i>J. Nuc. Mat.</i>	Journal of Nuclear Materials
<i>J. Phys.</i>	Journal of Physics
<i>J. Phys. C</i>	Journal of Physics C
<i>J. Phys. F: Metal Phys.</i>	Journal of Physics F: Metal Physics
<i>J. Phys. Chem. Sol.</i>	Journal of Physics and Chemistry of Solids
<i>J. Phys. Colloq. (France)</i>	Journal of Physics Colloquium (France)
<i>J. Phys. Condens. Matter</i>	Journal of Physical Condensed Matter

<i>J. Sci. Soc. Thailand</i>	Journal of the Science Society of Thailand
<i>Materials Research Society Symp Proc</i>	Materials Research Society Symposium Proceedings
<i>Mol. Phys.</i>	Molecular Physics
<i>Phil. Mag.</i>	Philosophical Magazine
<i>Physica</i>	Physica
<i>Physica B</i>	Physica B
<i>Phys. Lett.</i>	Physics Letters
<i>Phys. Rev.</i>	Physical Review
<i>Phys. Rev. A</i>	Physical Review A
<i>Phys. Rev. B</i>	Physical Review B
<i>Phys. Rev. Lett.</i>	Physical Review Letters
<i>Proc. of ILL Millenium Symp.</i>	Proceedings of the Institut Laue Langevin Millenium Symposium
<i>Rev. Mod. Phys.</i>	Reviews of Modern Physics
<i>Solid State Comm.</i>	Solid State Communications

## 11 Policy Research and Publications

1. ACCESS TO MAJOR INTERNATIONAL X-RAY AND NEUTRON FACILITIES (2009)  
Report of the Committee for International Scientific Affairs, American Physical Society  
Authors: Henry R. Glyde (Chair), Robert M. Briber and Sunil K. Sinha  
<http://www.aps.org/programs/international/resources/facilities.cfm>
2. FUTURE OPPORTUNITIES IN CONDENSED MATTER PHYSICS RESEARCH IN CANADA.  
(1981)  
H.R. Glyde. Principal Author with R.L. Armstrong, A.J. Berlinsky, L.G. Caron, G. Dolling, R.H. March, J.A. Morrison, W.A. Pieczonka and S.B. Woods. A Ten Year Plan for Condensed Matter Physics in Canada including areas of opportunity, funding and manpower priorities (90 pages). Solicited by the Natural Sciences and Engineering Research Council (NSERC) to the Canadian Association of Physicists (CAP).
3. INSTITUTIONAL LINKS; AN EXAMPLE IN SCIENCE AND TECHNOLOGY.  
H.R. Glyde and V. Sayakanit. Publication of the Institute for International Development and Cooperation, University of Ottawa and of "Higher Education in Europe," **10** (4) p. 519, UNESCO (1986). Reprinted as: Invited editorial in *J. Sci. Soc. Thailand* **12**, p. 61-66 (1986) and as an article in *Asia Pacific Physics News*, **2** (2), 29-30 (1987).
4. INSTITUTIONAL LINKS IN SCIENCE AND TECHNOLOGY; THE CASE OF THE UNITED KINGDOM AND THAILAND.  
H.R. Glyde. Applied Scientific Research Corporation of Thailand (Bangkok), Technical Report No. 55/5; An abbreviated version in *International Development Review* **15**, 7 (1973); Reprinted in *Ekistics* (Reviews on Problems and Science of Human Settlements.) **34**, 440 (1973).
5. ON SCIENCE AND TECHNOLOGY IN THAILAND. (In Thai and English). H.R. Glyde. *Science* (The Journal of the Science Society of Thailand), **27**, 19 (1973).

6. CANADA AS A DEVELOPING COUNTRY. H.R. Glyde. Science Forum **35**, 26 (1973).

## 12 Scientific presentations: Invited and Contributed Talks

### Invited Talks: 2000-2012 Henry R. Glyde

1. *Bose-Einstein Condensation, Phonon-roton excitations and Superfluidity in liquid  $^4\text{He}$  in Nanoporous Media*  
Neutron Scattering Principal Investigators Meeting, BES, DOE  
Gaithersburg, Maryland July 2012
2. *Intrinsic Mean Square Displacements in Proteins*  
Seminar, Institut Laue Langevin  
Grenoble, France July 2012
3. *Mean Square Displacements in Proteins*  
Seminar, Oak Ridge National Laboratory  
Oak Ridge, Tennessee October 2011
4. *The Role of Neutrons in Liquid and Solid Helium:  
Recent Achievements and Future Opportunities*  
Seminar, Oak Ridge National Laboratory  
Oak Ridge, Tennessee October 2011
5. *Localized Bose-Einstein Condensation in Liquid Helium Porous Media*  
European Conference on Neutron Scattering  
Prague, Czech Republic July 2011
6. *Bose-Einstein Condensation and Superfluidity Investigated Using High Energy Neutrons*  
UK-Italy Workshop, High energy Neutrons for Science and Society  
Rome, Italy October 2010
7. *Bose-Einstein Condensation and Superfluidity in Liquid and Solid Helium*  
Colloquium, Hunter college, CUNY  
New York City, NY October 2010
8. *Bose-Einstein Condensation, phonon-roton modes and the Bose Glass phase of liquid  $^4\text{He}$  in porous media*  
International Conference on Quantum Fluids and Solids  
Grenoble, France, August 2010
9. *Bose-Einstein Condensation, Phonon-roton excitations and Superfluidity in liquid  $^4\text{He}$  in Nanoporous Media*  
Neutron Scattering Contractors Meeting  
Airlie, Warrenton, VI, July 2010
10. *Access to Major International X-Ray and Neutron Facilities*  
Plenary Talk  
European Research Facilities Conference on:Future Access to European Research Infrastructures.  
Lund, Sweden October 2009  
<http://www.europeanresearchfacilities.eu/IMG/pdf/HGlyde.pdf>.
11. *Vibrational Dynamics of Atoms in Proteins*  
Institut Laue Langevin, Seminar  
Grenoble, France October, 2009
12. *Bosons in Disorder and Superflow in Solid Helium*  
Institut Laue Langevin and CNRS, Seminar  
Grenoble, France June, 2009

13. *Phonon-Roton Modes, Superfluidity and a Bose Glass Phase in Nanoscale Liquid  $^4\text{He}$*   
Indiana University, Seminar  
Bloomington, Indiana December 2008
14. *Phonon-Roton Modes and a Bose Glass Phase in Nanoscale Liquid  $^4\text{He}$*   
Ecole Normale Supérieure de Lyon, Seminar  
Lyon, France July 2008
15. *Access to Major International X-Ray and Neutron Facilities*  
American Conference on Neutron Scattering  
Santa Fe, New Mexico May 2008
16. *Phonon-Roton Excitations and Quantum Phase Transitions in Liquid  $^4\text{He}$  in Nanoporous Media*  
Institut Laue Langevin, Seminar  
Grenoble, France January 2008
17. *Superfluids in Confinement*  
International Workshop on Advances in the Properties of Confined Fluids: from Superfluids to Oil  
Abingdon, UK January 2008
18. *Dynamics and Superfluidity of Quantum Liquids in Nanoporous Media*  
Invited but declined  
International Workshop on Condensed Matter Theories 31  
Bangkok, Thailand December 2007
19. *Excitations and Quantum Phase Transitions in Nanoporous Media*  
Invited but declined  
International Symposium on New Quantum Phases in Superclean Materials  
Gifu, Japan October 2007
20. *Bose-Einstein Condensation, Superfluidity and Elementary Excitations in Quantum Liquids*  
Recent Progress in Many Body Theories 14  
Barcelona, Spain July 2007
21. *Access to Major International X-Ray and Neutron Facilities*  
International Union of Pure and Applied Physics Meeting  
National Academy of Sciences, Washington DC June 2007
22. *Dynamics and Superfluidity of Quantum Liquids in Nanoporous Media*  
US-China Workshop on Neutron Scattering  
Beijing, China November 2006
23. *Dynamics and Superfluidity of Quantum Liquids in Nanoporous Media*  
Institute of Physics, Chinese Academy of Sciences  
Beijing, China November 2006
24. *Bose-Einstein Condensation, Superfluidity and Elementary Excitations in Quantum Liquids*, University of  
Alberta, Colloquium  
Edmonton, Canada October 2006
25. *Excitations and Quantum Phase Transitions in Nanoporous Media*  
Henry R. Glyde, J. V. Pearce, J. Bossy and H. Schober  
Quantum Fluids and Solids Symposium  
Kyoto, Japan August 2006
26. *Anharmonic Solids and Quantum Liquids*  
Symposium for Roger A. Cowley, Oxford University  
Oxford, England July 2006
27. *Experiments on the Origin of Superfluidity, Liquid Helium at Nanoscales*  
Institut Laue Langevin, Seminar  
Grenoble, France May 2006
28. *Dynamics of Quantum Liquids in Nanoporous Media*  
International Symposium on Dynamics in Confinement  
Institut Laue Langevin  
Grenoble, France March 2006

29. *Excitations, Bose-Einstein Condensation and Superfluidity of Quantum Liquids in Disorder*  
23<sup>rd</sup> International Conference of the Turkish Physical Society  
Mugla, Turkey September 2005
30. *Quantum Liquids in Nanoporous Media and on Surfaces*  
National Nanotechnology Initiative Workshop on X-Rays and Neutrons  
Washington DC June 2005
31. *Excitations, Bose-Einstein Condensation and Superfluidity of Quantum Liquids in Disorder*  
Pennsylvania State University, Seminar  
State College, Pennsylvania April 2005
32. *Bose-Einstein Condensation, Excitations and Superfluidity of Liquid <sup>4</sup>He in Disorder*  
Institut Laue Langevin, Seminar  
Grenoble, France June 2004
33. *Dynamics of Quantum Liquids in Disorder*  
International Conference on Dynamics of Disordered Materials on a Nanometer Scale  
Hanoi, Vietnam February 2004
34. *Bose-Einstein Condensation, Excitations and Superfluidity of Liquid <sup>4</sup>He in Disorder*  
Chulalongkorn University, Seminar  
Bangkok, Thailand February 2004
35. *Diffusion Monte Carlo Study of Trapped Bose Condensates, Effects beyond the Mean Field*  
Bose-Einstein Condensation Euroconference  
San Feliu de Gixois, Spain September 2003
36. *Excitations, Bose-Einstein Condensation and Superfluidity in Liquid <sup>4</sup>He in Disorder*  
Canadian Association of Physicists Annual Congress  
Charlottetown, PEI, Canada June 2003
37. *Dynamics of Quantum Liquids in Confinement, Theory and Experiment*  
Dynamics in Confinement, Second International Workshop  
ILL, Grenoble, France January 2003
38. *Bose-Einstein Condensation in Traps: a Diffusion Monte Carlo Analysis*  
Condensed Matter Theories Workshop  
Luso, Portugal September 2002
39. *Physics of Quantum Fluids*  
Four invited lectures presented at Institut Laue Langevin  
Grenoble, France June 2002
40. *Excitations and Localization of Bosons in Disorder*  
Seminar at the CNRS  
Grenoble, France May 2002
41. *Excitations, Bose-Einstein Condensation and Superfluidity in Liquid <sup>4</sup>He*  
Colloquium, University of Washington  
Seattle, Washington February 2002
42. *Excitations, Bose-Einstein Condensation and Superfluidity in Liquid <sup>4</sup>He*  
Colloquium, University of Delaware  
Newark, Delaware February 2002
43. *Quantum Liquids, Excitations and Disorder*  
Hahn-Meitner Institute  
Berlin, Germany June 2001
44. *Quantum Liquids, Excitations and Disorder*  
Physikalisch-Technischen Bundesanstalt  
Braunschweig, Germany June 2001
45. *Excitations of Quantum Liquids in Disorder*  
ILL Millennium Symposium  
Grenoble, France April 2001

46. *Excitations and Bose-Einstein Condensation in Liquid  $^4\text{He}$*   
Washington State University, Colloquium  
Pullman, Washington March 2001
47. *APS Wheatley Award 2001 Talk*  
American Physical Society Meeting  
Seattle, Washington March 2001
48. *Excitations of Superfluid  $^4\text{He}$  Beyond the Roton*  
Temple University  
Philadelphia, Pennsylvania December 2000
49. *Disordered Materials, the Science Case for the LWTS-SNS*  
Long Wavelength Target Station Proposal (NSF Review Meeting)  
Argonne National Lab, Argonne, Illinois November 2000
50. *Liquids and Disordered Materials, the Science Case*  
Long Wavelength Target Station Proposal (NSF Planning Meeting)  
Argonne National Lab, Argonne, Illinois September 2000
51. *Bose-Einstein Condensation in Trapped Bosons, Mean Field and Monte Carlo Compared*  
Theoretical Physics Institute 40th Anniversary Meeting  
University of Alberta, Edmonton, Canada September 2000
52. *Monte Carlo Simulation of Bose-Einstein Condensation in Traps*  
International Workshop on Condensed Matter Theories  
Buenos Aires, Argentina September 2000
53. *Excitations of Liquid  $^4\text{He}$  in Porous Media*  
Quantum Fluids and Solids International Meeting  
Minneapolis, Minnesota June 2000
54. *Disordered Quantum Systems*  
Workshop on Disordered Materials at the Long-Wavelength Target Station, SNS  
University of Delaware, Newark, Delaware April 2000
55. *Excitations of Superfluid  $^4\text{He}$  in Confinement*  
Workshop on Quantum Liquids in Confinement  
Valencia, Spain February 2000

**CONTRIBUTED TALKS: 2000-2012 Henry R. GLYDE**

1. *Bose-Einstein condensation in liquid  $^4\text{He}$  under pressure*  
Poster, Quantum Fluids and Solids 2012  
Lancaster, England August 2012
2. *Phonon-roton modes and Bose-Einstein condensation in liquid  $^4\text{He}$*   
Poster, Quantum Fluids and Solids 2012  
Lancaster, England August 2012
3. *Modes of amorphous solid helium*  
Poster, Quantum Fluids and Solids 2012  
Lancaster, England August 2012
4. *Bose-Einstein Condensation in Liquid  $^4\text{He}$  near the Liquid-solid Transition Line*  
Talk, American Conference on Neutron Scattering  
Washington, DC June 2012
5. *Excitations of amorphous solid helium*  
Poster, American Conference on Neutron Scattering  
Washington, DC June 2012

6. *Intrinsic Mean Square Displacement in Proteins*  
Poster, American Conference on Neutron Scattering  
Washington, DC June 2012
7. *Intrinsic Mean Square Displacement in Proteins*  
Talk, American Physical Society  
Boston, Mass March 2012
8. *Mean Square Displacements of Hydrogen in Proteins Observed by Neutrons*  
European Conference on Neutron Scattering  
Prague, Czech Republic July 2011
9. *Bose-Einstein Condensation in Liquid Helium under Pressure*  
European Conference on Neutron Scattering  
Prague, Czech Republic July 2011
10. *Amorphous Solid Helium in Porous Media*  
Supersolids Paris 2010  
Paris, France, July 2010
11. *Bose-Einstein Condensation in Liquid Helium under Pressure*  
American Conference on Neutron Scattering  
Ottawa, Canada, June 2010
12. *Vibrational Dynamics of Atoms in Proteins*  
American Conference on Neutron Scattering  
Ottawa, Canada, June 2010
13. *Amorphous solid helium in porous media*  
American Physical Society Meeting  
Portland, OR March 2010
14. *Vibrational Dynamics of Atoms in Proteins*  
American Physical Society Meeting  
Portland, OR March 2010
15. *Bose-Einstein Condensation in Confined Solid Helium*  
Supersolids Banff, 2009  
Banff, Alberta, August 2009
16. *Amorphous Solid Helium in Porous Media*  
Supersolids Banff, 2009  
Banff, Alberta, August 2009
17. *Bose-Einstein Condensation in Solid Helium*  
ICNS09, International Conference on Neutron Scattering  
Knoxville, TN, May 2009
18. *Bose Glass Phase in Nanoscale Liquid Helium*  
ICNS09, International Conference on Neutron Scattering  
Knoxville, TN, May 2009
19. *Phonon-rotor modes, Superfluidity and a Bose Glass Phase in Nanoscale Liquid  $^4\text{He}$*   
American Physical Society Meeting  
Pittsburgh, PA March 2009
20. *Bose-Einstein Condensation in Solid Helium*  
American Physical Society Meeting  
Pittsburgh, PA March 2009
21. *Quantum Phase Transition and a Bose Glass Phase in Nanoscale Liquid Helium*  
American Conference on Neutron Scattering  
Santa Fe, New Mexico May 2008
22. *Dynamic Structure Factor of One Dimensional and Two Dimensional Solid Helium Adsorbed on Nanotubes*  
American Conference on Neutron Scattering  
Santa Fe, New Mexico May 2008



23. *Bose-Einstein Coherence in Two Dimensional Superfluid  $^4\text{He}$*   
American Physical Society Meeting  
New Orleans, Louisiana March 2008
24. *Dynamics of One Dimensional and Two Dimensional Solid  $^4\text{He}$  Adsorbed on Nanotubes*  
American Physical Society Meeting  
New Orleans, Louisiana March 2008
25. *Bose-Einstein Condensation and Superfluidity in Optical Lattices and Periodic Porous Media; a Path Integral Monte Carlo Study*  
American Physical Society Meeting  
New Orleans, Louisiana March 2008
26. *Phonon-Roton Modes and a Bose Glass Phase in Nanoscale Liquid  $^4\text{He}$*   
American Physical Society Meeting  
New Orleans, Louisiana March 2008
27. *Bose-Einstein Condensation and Atomic Kinetic Energies in Liquid  $^3\text{He}$ - $^4\text{He}$  Mixtures*  
SNS Workshop on eV Neutron Scattering  
Oak Ridge, Tennessee October 2006
28. *Bose-Einstein Condensation in Liquid Helium Films*  
5th International Conference on Synchrotron Radiation in Materials Science  
Chicago, Illinois July 2006
29. *Localization of Bose-Einstein Condensation in Liquid Helium Confined in Nanoporous Media*  
American Conference on Neutron Scattering  
St. Charles, Illinois June 2006
30. *Bose-Einstein Condensation and Atomic Kinetic Energies in Liquid  $^3\text{He}$ - $^4\text{He}$  Mixtures*  
American Conference on Neutron Scattering  
St. Charles, Illinois June 2006
31. *Excitations of Liquid Helium Confined to Nanoscales*  
Institut Laue Langevin Millenium Symposium  
Grenoble, France April 2006
32. *Bose-Einstein Condensation and Superfluidity in Finite Sized Systems*  
American Physical Society Meeting  
Baltimore, Maryland March 2006
33. *Bose-Einstein Condensation in Liquid Helium Films*  
American Physical Society Meeting  
Baltimore, Maryland March 2006
34. *Bose-Einstein Condensation and Atomic Kinetic Energies in Liquid Helium Mixtures*  
SNS-HFIR International Users Meeting  
Oak Ridge, Tennessee October 2005
35. 1. *Bose-Einstein Condensation and Atomic Kinetic Energies in Liquid  $^3\text{He}$ - $^4\text{He}$  Mixtures*  
2. *Liquid Helium in Disorder and Boson Localization*  
3. *Bose-Einstein Condensation with Attractive Interactions*  
4. *Excitations of Metastable Superfluid  $^4\text{He}$  at Pressures up to 40 Bars*  
5. *Structure of  $^4\text{He}$  Adsorbed on Single-Wall Carbon Nanotube Bundles*  
American Physical Society Meeting  
Los Angeles, California March 2005
36. *Elementary Excitations and Sound Speed in Liquid  $^4\text{He}$  at Negative Pressures*  
Quantum Fluids and Solids 2004  
Trento, Italy July 2004
37. *Excitation of Metastable Liquid  $^4\text{He}$  at Pressures up to 40 Bars*  
Quantum Fluids and Solids 2004  
Trento, Italy July 2004

38. *Quantum Momentum Distributions and Kinetic Energy in Solid  $^4\text{He}$*   
American Conference on Neutron Scattering  
College Park, Maryland June 2004
39. *Liquid  $^4\text{He}$  in Disorder and Boson Localization*  
American Physical Society  
Montreal, Canada March 2004
40. *Full Quantum Monte Carlo Treatment of BEC in Traps from the Dilute to Dense Regimes*  
American Physical Society  
Montreal, Canada March 2004
41. *Bose-Einstein Condensation with Attractive Interactions*  
American Physical Society  
Montreal, Canada March 2004
42. *Excitations of Liquid  $^4\text{He}$  in MCM-41 Vycor and Geltech Silica*  
American Physical Society Meeting  
Austin, Texas March 2003
43. *Bose-Einstein Condensation in Liquid  $^4\text{He}$  in Disorder*  
American Physical Society Meeting  
Indianapolis, Indiana March 2002
44. *Excitations of Superfluid  $^4\text{He}$  at Wavevectors Beyond the Roton*  
American Physical Society Meeting  
Indianapolis, Indiana March 2002
45. *Excitations of Liquid  $^4\text{He}$  in Geltech Silica*  
American Physical Society Meeting  
Indianapolis, Indiana March 2002
46. *Bose-Einstein Condensate Distribution and Condensate Depletion in Zero Temperature Trapped Hard Sphere Bosons*  
American Physical Society Meeting  
Indianapolis, Indiana March 2002
47. *Bose-Einstein Condensates of  $^{85}\text{Rb}$  at Higher Densities*  
American Physical Society Meeting  
Indianapolis, Indiana March 2002
48. *Excitations of Superfluid  $^4\text{He}$  in Aerogel and Vycor*  
American Physical Society Meeting  
Seattle, Washington March 2001
49. *Excitations of Superfluid  $^4\text{He}$  beyond the Roton*  
American Physical Society Meeting  
Seattle, Washington March 2001
50. *Condensate and Momentum Distribution in Liquid  $^4\text{He}$*   
American Physical Society Meeting  
Seattle, Washington March 2001
51. *A QMC Analysis of Bose-Einstein Condensation in Trapped Hard Sphere Bosons*  
American Physical Society Meeting  
Seattle, Washington March 2001
52. *Excitations of Liquid  $^4\text{He}$  in Porous Media*  
Quantum Fluids and Solids International Meeting  
Minneapolis, Minnesota June 2000
53. *Liquids, Glasses and Disordered Materials*  
Breakout Session, Spallation Neutron Source Users Meeting  
Washington DC May 2000

54. *Excitations of Liquid  $^4\text{He}$  in Vycor*  
American Physical Society Meeting  
Minneapolis, Minnesota March 2000
55. *Bulk and Layer Excitations of Liquid  $^4\text{He}$  in Aerogel*  
American Physical Society Meeting  
Minneapolis, Minnesota March 2000
56. *Dynamics of Liquid  $^4\text{He}$  in Geltech Silica*  
American Physical Society Meeting  
Minneapolis, Minnesota March 2000
57. *Liquid Helium in Confinement*  
Dynamics in Confinement, International Meeting  
Grenoble, France January 2000
58. *Dynamics of Liquid  $^4\text{He}$  in Geltech*  
Dynamics in Confinement, International Meeting  
Grenoble, France January 2000

#### INVITED TALKS: 1976-1999 Henry R. GLYDE

- *Neutron Compton Scattering, an Overview*  
eVs Workshop, ISIS, Rutherford Appleton Laboratory  
Oxford, England November 1999
- *Excitations in Quantum Liquids*  
Chulalongkorn University  
Bangkok, Thailand September 1998
- *Momentum Distributions and Final State Effects in Quantum Liquids*  
Los Alamos National Laboratory  
Los Alamos, New Mexico April 1998
- *Nature of Excitations in Quantum Liquids*  
Universitat Politecnica de Catalunya  
Barcelona, Spain June 1997
- *Excitations in Quantum Liquids*  
Recent Measurements, Interpretations and Future Prospects  
Centre National de Recherche Scientifique  
Grenoble, France June 1997
- *Elementary Excitations in Quantum Liquids*  
University of Erlangen  
Nuremberg, Germany May 1997
- *Excitations and the Condensate in Superfluid  $^4\text{He}$*   
National Institute of Standards and Technology  
Gaithersburg, Maryland October 1996
- *Momentum Distributions and Neutron Scattering from Quantum Fluids*  
Rutherford Appleton Laboratory  
Oxford, UK June 1996
- *Excitations in Quantum Liquids*  
Hahn Meitner Institute  
Berlin, Germany June 1996

- *Nature of Excitations in Quantum Fluids*  
Control Research and Development, DuPont de Nemours Co  
Wilmington, Delaware April 1996
- *Single Particle Dynamics in Quantum Fluids Observed by Neutron Scattering*  
International Workshop on Condensed Matter Theories  
Vallencia, Spain June 1994
- *Nature of Excitations in Superfluid  $^4\text{He}$*   
Centre National de Recherche Scientifique  
Grenoble, France June 1994
- *Temperature Dependence of Phonon-Roton Excitations*  
Institut Laue Langevin  
Grenoble, France June 1994
- *Liquid Helium, the Superfluid*  
Dickinson College  
Carlisle Pennsylvania November 1993
- *Role of the Condensate in the Existence of Phonons and Rotons*  
20<sup>th</sup> International Conference on Low Temperature Physics  
Eugene, Oregon August 1993
- *Density and Quasiparticle Excitations in Superfluid  $^4\text{He}$*   
Oak Ridge National Laboratory  
Oak Ridge, Tennessee July 1993
- *Momentum Distributions and Final State Effects in Neutron Scattering*  
Rutherford Appleton Laboratory  
Oxford, England June 1993
- *Momentum Distributions and Final State Effects Neutron Scattering*  
Atomic Energy of Canada Ltd.  
Chalk River, Ontario, Canada May 1993
- *Flux Line Dynamics, Path Integrals and Bosons*  
International Conference on Path Integrals  
Bangkok, Thailand January 1993
- *Density-Quasiparticle Interpretation of Excitations in Liquid  $^4\text{He}$*   
Workshop on Condensed Matter Theories  
Puerto Rico June 1992
- *Phonons and Rotons in Liquid  $^4\text{He}$  - a New Interpretation*  
Institut Laue-Langevin  
Grenoble, France July 1991
- *Neutron Scattering from Liquid  $^4\text{He}$*   
International School on Quantum Solids, Liquids and Gases  
Elba, Italy June 1991
- *Flux Line Lattice Melting in High  $T_c$  Materials*  
University of Alberta  
Edmonton, Canada May 1991
- *Phonons and Rotons in Liquid  $^4\text{He}$ , Quasiparticles vs Density Excitations*  
University of British Columbia  
Vancouver, Canada April 1991
- *Recent Theories of Excitations in Liquid  $^4\text{He}$*   
American Physical Society Meeting  
Cincinnati, Ohio March 1991
- *Phonons and Rotons in Liquid  $^4\text{He}$  - a New Interpretation*  
Washington University  
St. Louis, Missouri February 1991

- *Thin Films and Flux Line Lattice Stability*  
Second Annual Meeting of Thai National High  $T_c$  Superconductivity Project  
Phuket, Thailand January 1991
- *Excitations in Liquid  $^4\text{He}$*   
NATO Workshop on Excitations in 2D and 3D Quantum Fluids  
Exeter, England August 1990
- *The Nature of Excitations in Liquid  $^4\text{He}$  – Density or Single Particle Excitations*  
Nonlinear and Chaotic Phenomena Workshop  
Edmonton, Alberta, Canada July 1990
- *Single Particle Properties of Atomic Deuterium*  
XIV Workshop on Condensed Matter Theories  
Elba, Italy June 1990
- *Flux Lattice Melting in High  $T_c$  Materials*  
First Annual Meeting of Thai National High Temperature Superconductivity Project  
Chiang Mai, Thailand January 1990
- *Quantum Hall Oscillations, Disorder and Screening*  
Department of Physics, University of Alberta  
Edmonton, Canada November 1989
- *Ground State Energy and Landau Parameters of Spin-Polarized Deuterium*  
VIII Workshop on Condensed Matter Theories  
Campos do Jordao, Brazil August 1989
- *Neutron Studies of Excitations in Liquid  $^4\text{He}$*   
Physik Technische Bundesanstalt  
Braunsschweig, Germany August 1989
- *Spin-Polarized Deuterium in the Galitskii Feynman Hartree Fock Approximation*  
Many Body Encounters, University of Minnesota  
Minneapolis, Minnesota May 1989
- *Path Integrals, Disorder and Quantum Hall Oscillations*  
University of Toronto  
Toronto, Canada March 1989
- *Path Integrals and Density of States in Disordered Systems*  
*Path Integrals, Disorder and Quantum Hall Oscillations*  
Path Integrals from meV to MeV Conference, Chulalongkorn  
University, Bangkok, Thailand January 1989
- *Elementary Excitations in Quantum Fluids*  
Johns Hopkins University  
Baltimore, Maryland November 1988
- *Approach to the Impulse Approximation in Quantum Solids and Fluids*  
Momentum Distributions Conference, Argonne National Laboratory  
Argonne, Illinois November 1988
- *Elementary Excitations in Quantum Fluids*  
University of Alberta  
Edmonton, Alberta, Canada April 1988
- *Neutron Scattering from Quantum Liquids*  
Atomic Energy of Canada Ltd.  
Chalk River, Canada February 1988
- *Elementary Excitations in Quantum Fluids*  
Guelph University  
Guelph, Ontario, Canada November 1987

- *Path Integrals, Band Tails and Urbach Tails*  
Path Integral Methods with Applications Conference  
Trieste, Italy September 1987
- *High Momentum Excitations in Quantum Fluids*  
VII Workshop on Condensed Matter Theories  
Oulu, Finland July 1987
- *Urbach Tails and Disorder and Institutional Links in Science and Education*  
International Workshop on Topics in Semiconductor Physics  
Bangkok, Thailand January 1987
- *Impulse Approximation in Liquid and Solid Helium*  
Rutherford-Appleton Laboratory  
Oxford, England July 1986
- *Urbach Tails, Band Tails and Disorder*  
CNRS  
Grenoble, France June 1986
- *Many-Body Theory in Quantum Fluids*  
International Centre for Theoretical Physics  
Trieste, Italy June 1986
- *Neutron Scattering from Liquid  $^3\text{He}$*   
University of Erlangen, Erlangen, Germany  
and Physics Technische Bundesanstalt, Braunschweig, Germany May 1986
- *Elementary Excitations in Quantum Fluids*  
Institut Laue-Langevin  
Grenoble, France February 1986
- *Elementary Excitations in Normal  $^3\text{He}$*   
Harvard University  
Cambridge, Massachusetts November 1985
- *Spin-Polarized Systems, plus other talks*  
University of Delaware  
Newark, Delaware October 1985
- *Spin-Polarized Deuterium*  
VI Workshop on Condensed Matter Theories  
San Francisco, California August 1985
- *Liquid and Solid Helium*  
National Workshop on Solid State Physics  
Bangkok, Thailand January 1985
- *Quantum Solids and Fluids*  
Chiang Mai University  
Chiang Mai, Thailand January 1985
- *Microscopic Theory of Fermi Liquids*  
University of Toronto  
Toronto, Canada November 1984
- *Normal and Spin Polarized Liquid  $^3\text{He}$*   
Ecole Normal Supérieur  
Paris, France October 1984
- *Normal  $^3\text{He}$ , Spin Polarized  $^3\text{He}$  and Deuterium*  
V Workshop on Condensed Matter Theories  
Granada, Spain September 1984
- *Microscopic Theory of Normal and Spin Polarized  $^3\text{He}$*   
University of Sussex  
Brighton, England April 1984

- *Dynamical Properties of Quantum Solids and Fluids Using Neutrons (two lectures)*  
NATO Advanced Study Institute on Condensed Matter Research  
Rutherford Laboratory, England March 1984
- *Neutron Scattering From Liquid  $^3\text{He}$*   
Atomic Energy of Canada Research Co.  
Chalk River, Ontario, Canada January 1984
- *Microscopic Theory of Fermi Liquids with Applications to Normal  $^3\text{He}$ ,  $^3\text{He}$  and Deuterium*  
Los Alamos National Laboratory  
Los Alamos, New Mexico December 1983
- *Normal and Spin Polarized  $^3\text{He}$*   
Brookhaven National Laboratory  
Long Island, New York August 1983
- *Spin Polarized Fermi Systems*  
SUNY at Stony Brook  
Stony Brook, New York June 1983
- *Microscopic Theory of Fully Spin-Polarized  $^3\text{He}$*   
Sanibel Symposium on Quantum Fluids and Solids  
Florida April 1983
- *Effective Interactions in Normal and Polarized  $^3\text{He}$*   
Lawrence Livermore Laboratory, Livermore, California January 1983  
University of Illinois, Urbana, Illinois December 1982  
Argonne National Laboratory, Argonne, Illinois December 1982  
Northwestern University, Evanston, Illinois December 1982
- *The Galitskii-Feynmann T-Matrix and Liquid  $^3\text{He}$*   
SUNY at Stony Brook  
Stony Brook, New York July 1982
- *Exchange Models and Neutron Scattering in bcc  $^3\text{He}$*   
LTBT/CENG Informal Seminar  
Grenoble, France November 1981
- *Self-Consistent Phonons*  
ILL/CENG Colloquium  
Grenoble, France November 1981
- *Vibrational Instabilities in Crystals, and T-Matrix Calculations and Effective Interactions in Liquid  $^3\text{He}$*   
ILL Informal Seminar  
Grenoble, France November 1981
- *Pressure Dependence of Elementary Excitations in Liquid  $^3\text{He}$*   
Canadian Association of Physicists Annual Congress  
Halifax, Nova Scotia, Canada June 1981
- *Quantum Crystals*  
University of Delaware  
Newark, Delaware February 1981
- *Liquid and Solid Helium*  
Mahidol University  
Bangkok, Thailand December 1980
- *Phonons in Solids*  
Chulalongkorn University  
Bangkok, Thailand December 1980
- *Future Opportunities in Condensed Matter Physics in Canada*  
Canadian Association of Physicists Fall Symposium  
Kingston, Ontario, Canada November 1980

- *Centres of Excellence in Developing Countries*  
American Physical Society Meeting on Physics and Development  
Badock, New Brunswick  
November 1980
- *Neutron Scattering from Solid Helium*  
Institute Laue-Langevin  
Grenoble, France  
November 1980
- *Institutional Link in Semiconductor Physics*  
Ottawa - Chulalongkorn University of Ottawa  
Ottawa, Canada  
January 1980
- *Pressure Dependence of Elementary Excitations in Liquid  $^3\text{He}$*   
Queen's University  
Kingston, Ontario  
December 1979
- *Pressure Dependence of Elementary Excitations in Liquid  $^3\text{He}$*   
Simon Fraser University  
Vancouver, B.C. Canada  
October 1979
- *Pressure Dependence of Elementary Excitations in Liquid  $^3\text{He}$*   
University of Alberta  
Edmonton, Alberta  
September 1979
- *Solid Helium*  
A Canadian Association of Physicists Lecture Tour to the Royal Military College, Queen's University, York University, and Trent University  
Canada  
March 1979
- *Institutional Links in Science and Education*  
American Association for the Advancement of Science Annual Meeting  
Houston, Texas  
January 1979
- *Third World Science and the West*  
National Research Council of Canada  
Ottawa, Ontario, Canada  
November 1978
- *Faces of Self Consistent Phonons*  
Canadian Association of Physicists' Fall Symposium  
Hamilton, Ontario, Canada  
October 1978
- *Elementary Excitations in Quantum Solids and Fluids*  
Sherbrooke University  
Sherbrook, Quebec, Canada  
March 1978
- *Elementary Excitations in Quantum Solids and Fluids*  
University of Ottawa  
Ottawa, Ontario, Canada  
March 1978
- *Review of Neutron Scattering from Quantum Crystals*  
International Conference on Quantum Solids  
Fort Collins, Colorado  
August 1977
- *Quantum Liquids and Solids*  
Atomic Energy of Canada Ltd.  
Chalk River, Ontario, Canada  
February 1977
- *Excitations in Normal Liquid  $^3\text{He}$*   
Quantum Fluids and Solids Conference  
Sanibel, Florida  
January 1977
- *Landau Theory and Neutron Scattering from Liquid  $^3\text{He}$*   
University of Toronto  
Toronto, Ontario, Canada  
November 1976



- *The Role of Intermolecular Forces in Condensed Matter*  
Chemical Institute of Canada Annual Meeting  
London, Ontario, Canada June 1976

**CONTRIBUTED TALKS: 1976-1999 Henry R. GLYDE**

- *Excitations of Liquid  $^4\text{He}$  in Porous Media*  
European Conference on Neutron Scattering  
Switzerland September 1999
- *Effective Mass and Spin and Density Fluctuations in Liquid  $^3\text{He}$*   
American Physical Society Meeting  
Atlanta, Georgia March 1999
- *Dynamic Structure Factor of Liquid  $^4\text{He}$  in Aerogel*  
American Physical Society Meeting  
Atlanta, Georgia March 1999
- *Excitation Energies of Superfluid  $^4\text{He}$  at Wavevectors Beyond the Roton*  
American Physical Society  
Atlanta, Georgia March 1999
- *Excitations in Superfluid  $^4\text{He}$  Beyond the Roton*  
American Physical Society Meeting  
Los Angeles, California March 1998
- *Elementary Excitations of Liquid  $^4\text{He}$  in Aerogel*  
American Physical Society Meeting  
Los Angeles, California March 1998
- *Bose Condensation in Trapped Hard Sphere Bosons*  
American Physical Society Meeting  
Los Angeles, California March 1998
- *Momentum Distributions and Bose Condensation in Quantum Fluids*  
Quantum Fluids and Solids Conference  
Paris, France July 1997
- *Bose Condensation in Quantum Fluids*  
Bose Einstein Condensation Conference  
Il Ciocco, Italy July 1997
- *The Condensate and Final State Effects in Superfluid  $^4\text{He}$*   
American Physical Society Annual Meeting  
Kansas City, Kansas March 1997
- *Quasiparticle Excitations in Superfluid  $^4\text{He}$*   
American Physical Society Meeting  
St. Louis, Missouri March 1996
- *Momentum Distributions and Final State Effects in Quantum Liquids*  
American Physical Society Meeting  
St. Louis, Missouri March 1996
- *Elementary Excitations in Liquid  $^4\text{He}$*   
American Physical Society Annual Meeting  
Pittsburgh, Pennsylvania June 1994
- *Flux Line Lattice Melting and the Lindemann Ratio*  
Proceedings of the 20<sup>th</sup> International Conference on Low Temperature Physics  
Eugene, Oregon August 1993

- *Deep Inelastic Neutron Scattering and Momentum Distributions in Quantum Liquids*  
Proceedings of the 20<sup>th</sup> International Conference on Low Temperature Physics  
Eugene, Oregon August 1993
- *Momentum Distributions and Final State Effects in Neutron Scattering*  
American Physical Society Annual Meeting  
Seattle, Washington March 1993
- *Momentum Distributions, Final State Effects and  $S(Q, \omega)$  in Helium*  
Symposium on Quantum Fluids and Solids  
Penn State University, Pennsylvania June 1992
- *Temperature Dependence of Density and Quasiparticle Excitations in Liquid  $^4\text{He}$*   
Symposium on Quantum Fluids and Solids  
Penn State University, Pennsylvania June 1992
- *Density and Quasiparticle Excitations in Liquid  $^4\text{He}$*   
American Physical Society Meeting  
Indianapolis, Indiana March 1992
- *Flux Line Melting in High  $T_c$  Superconducting Films*  
American Physical Society Meeting  
Indianapolis, Indiana March 1992
- *Dynamics of the Magnetic Flux Line Lattice*  
American Physical Society Meeting  
Cincinnati, Ohio March 1991
- *A New Interpretation of Maxons and Rotons in Superfluid  $^4\text{He}$*   
CAP Annual Congress  
St. Johns, Newfoundland, Canada June 1990
- *Disorder, Screening and Broadening of Landau Levels in Two Dimensional Electron Systems*  
American Physical Society Meeting  
Anaheim, California March 1990
- *Phonons and Rotons in Liquid  $^4\text{He}$ : a New Interpretation*  
American Physical Society Meeting  
Anaheim, California March 1990
- *Dynamics of Hard Core Quantum Fluids in the Galitskii-Feynman-Hartree-Fock Approximation*  
American Physical Society Meeting  
Anaheim, California March 1990
- *Temperature Dependence of Phonon-Roton Excitations in Liquid  $^4\text{He}$*   
Phonons 89 International Conference  
Heidelberg, Germany August 1989
- *First Principles Calculation of Fermi Liquid Properties*  
Canadian Association of Physicists Annual Congress  
Guelph, Ontario, Canada June 1989
- *Path Integrals, Disorder and Quantum Hall Oscillations*  
Canadian Association of Physicists Annual Congress  
Guelph, Ontario, Canada June 1989
- *Disorder and Broadening of Landau Levels in a 2D Electron Gas*  
American Physical Society Meeting  
St. Louis, Missouri March 1989
- *Contributions from Two-Hole States to Properties of Liquid  $^3\text{He}$*   
American Physical Society Meeting  
St. Louis, Missouri March 1989
- *Temperature Dependence of  $S(Q, \omega)$  in Liquid  $^4\text{He}$  Under Pressure*  
Canadian Association of Physicists Annual Congress  
Montreal, Quebec, Canada June 1988

- *Density of States Between Landau Levels in a Two Dimensional Electron Gas*  
Canadian Association of Physicists Annual Congress  
Montreal, Quebec, Canada June 1988
- *Urbach Tails and Disorder*  
International Conference on Recent Progress in Many-Body Theories  
Oulu, Finland August 1987
- *Temperature Dependence of  $S(Q,\omega)$  for Liquid  $^4\text{He}$  at High Pressure*  
Canadian Association of Physicists Annual Congress  
Toronto, Ontario, Canada June 1987
- *Excitations at High Momentum in Quantum Fluids*  
Canadian Association of Physicists Annual Congress  
Toronto, Ontario, Canada June 1987
- *Urbach Tails, Band Tails and Disorder*  
Canadian Association of Physicists Annual Congress  
Toronto, Ontario, Canada June 1987
- *Dynamics of Neon and Argon Monolayers Absorbed on Graphite*  
American Physical Society Meeting  
New York City, New York March 1987
- *Urbach Tails, Band Tails and Disorder*  
American Physical Society Meeting  
New York City, New York March 1987
- *Excitations at High Momentum in Quantum Fluids*  
American Physical Society Meeting  
New York City, New York March 1987
- *High Momentum Excitations in Quantum Fluids*  
International Conference on Liquid and Solid Helium  
Banff, Canada October 1986
- *Dynamics of Rare Gas Monolayers in the SCP Theory*  
American Physical Society Meeting June 1986
- *Kinetic Energies in Solid  $^3\text{He}$*   
American Physical Society Meeting June 1986
- *Spin-Polarized Deuterium*  
Gordon Conference on Spin-Polarized Quantum Systems  
Massachusetts July 1985
- *Kinetic Energies in Quantum Solids*  
Canadian Association of Physicists Annual Congress  
Fredricton, New Brunswick June 1985
- *Kinetic Energies in Quantum Solids*  
American Physical Society Meeting  
Baltimore, Maryland March 1985
- *Impulse Approximation in Solid Helium*  
American Physical Society Meeting  
Baltimore, Maryland March 1985
- *Crystal Stability, Dynamics and Vacancies*  
Canadian Association of Physicists Annual Congress  
Sherbrooke, Quebec, Canada June 1984
- *Fully Spin Polarized Liquid  $^3\text{He}$*   
Canadian Association of Physicists Annual Congress  
Sherbrooke, Quebec, Canada June 1984

- *Fully Spin-Polarized Liquid  $^3\text{He}$*   
American Physical Society Meeting  
Washington DC April 1984
- *Particle-Hole Excitations in Liquid  $^3\text{He}$*   
American Physical Society Meeting  
Washington DC April 1984
- *Effective Interactions in Liquid  $^3\text{He}$  and  $^3\text{He}$*   
American Physical Society Meeting  
New York City, New York April 1983
- *Vibrational Instability and Melting*  
Canadian Association of Physicists Annual Congress  
Kingston, Canada June 1982
- *T-Matrix Calculations of Effective Interactions*  
American Physical Society Meeting  
Washington DC April 1982
- *Impurity-Band Tails in Heavily Doped Semiconductors*  
Canadian Association of Physicists Annual Congress  
Halifax, Nova Scotia, Canada June 1981
- *Neutron Scattering from Solid  $^3\text{He}$*   
Canadian Association of Physicists Annual Congress  
Halifax, Nova Scotia, Canada June 1981
- *Neutron Scattering from Liquid  $^3\text{He}$*   
Cornell  $^3\text{He}$  Symposium  
Ithaca, New York August 1980
- *Dynamics of the Crystallized One Component Plasma*  
Canadian Association of Physicists Annual Congress  
Hamilton, Ontario, Canada June 1980
- *Electron Density of States in Disordered Systems*  
Canadian Association of Physicists Annual Congress  
Hamilton, Ontario June 1980
- *Elementary Excitations in Normal Liquid  $^3\text{He}$*   
Canadian Association of Physicists Annual Congress  
Hamilton, Ontario June 1980
- *Dynamics of the Crystallized One Component Plasma*  
American Physical Society Meeting  
New York March 1980
- *Elementary Excitations in Liquid  $^3\text{He}$*   
American Physical Society Meeting  
New York March 1980
- *Volume Forces in Simple Metals*  
American Physical Society Meeting  
Chicago, Illinois March 1979
- *Anharmonic Properties of Lithium*  
Canadian Association of Physicists Annual Congress  
London, Ontario, Canada June 1978
- *Anharmonic Properties of Potassium*  
Canadian Association of Physicists Annual Congress  
Saskatoon, Saskatchewan, Canada June 1977
- *Dynamics of Liquid  $^3\text{He}$*   
Meeting on Neutron Scattering in Condensed Matter  
Gatlinburg, Tennessee June 1976

- *Anharmonic Interference Effects in K*  
American Physical Society Meeting  
Atlanta, Georgia
- *Mode Gruneisen Parameters in K*  
American Physical Society Meeting  
Atlanta, Georgia

March 1976

March 1976

*Updated January, 2013*