Curriculum Vitae

Robert Laurence Dickman
National Radio Astronomy Observatory
Charlottesville, VA 22903
(434) 296-0288
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Citizenship

U.S.

Education

Columbia University: A.B. Physics
Columbia University: Ph.D. Physics

Professional Employment

Director, Central Development Laboratory
National Radio Astronomy Observatory Sep . 2014 – present

Director, Central Development Laboratory (Interim)
National Radio Astronomy Observatory Feb. 2014 – Sep. 2014

Head, New Initiatives Office and NRAO Scientist
National Radio Astronomy Observatory Mar. 2011 – present

Help identify and define future strategic paths for NRAO, including implementing and broadening NRAO's institutional partnerships; manage NRAO participation in DVA-1 project. Help put in place necessary export controls to support new and future partnerships and implement a legally compliant, long-term program for the Observatory. Carry out astrophysical research as time permits.

Assistant Director for New Mexico Operations and NRAO Scientist
National Radio Astronomy Observatory Sep. 2007 – Mar. 2011

Oversee staff of 200+ in the operation of the Very Large Array and the Very Long Baseline Array; also responsible for $100M upgrade of the Very Large Array. Carry out astrophysical research as time permits.

Visiting Scholar
Department of Astronomy, University of Virginia July 2006 – present

Lecturer, Fall 2012 semester: Astronomy 1210
Lecturer, Fall 2014 semester: Astronomy 1210

Visiting Scholar (during NSF Professional Improvement Leave):
Astronomy Department, California Institute of Technology Nov. 2006 – Apr. 2007
Astronomy Department, University of Virginia July 2006 – Oct. 2006
May 2007 – Aug. 2007

Research leave from NSF/AST. Equilibrium studies and radiative transfer models of interstellar molecular clouds; observational studies of AGN and molecular clouds.

ALMA Staff Associate
National Science Foundation Apr. 1999 – Sep. 2007

Bore primary Federal responsibility for scientific, fiscal, and managerial oversight of U.S. side of the $1.3B international Atacama Large Millimeter Array (ALMA) project; Chair, ALMA Board (2005-2006); Vice-Chair, ALMA Board (2003-2004).

Embassy Fellow, Santiago, Chile (NSF detail)
U.S. State Department and National Science Foundation Sep. 2002 – Nov. 2002

Represented U.S. Embassy on scientific issues as required, carried out study of Chilean information technology infrastructure for Embassy, analysis of other science issues, and continued main responsibility for development of ALMA partnership.

Visiting Investigator (research appointment while at NSF)
DTM, Carnegie Institution of Washington Sep. 1995 – Sep. 2001

Astrophysical research.

Coordinator, Radio Astronomy Facilities Unit and Program Manager
National Science Foundation Nov. 1993 – Nov. 2004

Coordinated $75M NSF radio astronomy facilities portfolio, recommending resource allocation amongst programs to DD/AST, and leading Unit staff. Established mechanism for developing funding for the MMA/ALMA program; continued to serve as NAIC Program Manager through 1999.

Program Manager
National Science Foundation Dec. 1991 – Nov. 1993

NSF Astronomy program manager for National Astronomy and Ionosphere Center (Arecibo Observatory). Coordinated program planning and support with NSF Upper Atmospheric Facilities section and NASA. Bore primary Federal responsibility for oversight of $25M NSF-NASA upgrade of observatory.

Visiting Associate Professor
Astronomy Department, Wesleyan University Spring semesters 1987 & 1989

Taught Galactic Astronomy; carried out astrophysical research.

Research Associate Professor; Observatory Manager
University of Massachusetts Aug. 1985 – Jun. 1992

Taught astronomy. Thesis advisor to Ph.D. and Masters degree students. Manager of Five College Radio Astronomy Observatory; managed $500,000 project to replace 14m radio telescope's 68-foot radome (1987).

Observatory Manager; Faculty Research Associate
University of Massachusetts Aug. 1980 – Aug. 1985

Manager of Five College Radio Astronomy Observatory. Thesis advisor to Ph.D. and Masters degree students.

Member of Technical Staff
The Aerospace Corporation Jun. 1978 – Jul. 1980

Carried out experimental studies of superconducting millimeter-wave mixers and cryogenic amplifiers. Did theoretical and experimental work on remote sensing and radiometric signatures. Carried out astrophysical research.

Postdoctoral Research Associate
Physics Department, Rensselaer Polytechnic Institute Nov. 1975 – Jun. 1978

Directed operations of 4.6m radio telescope at the Aerospace Corporation in El Segundo, CA; carried out astrophysical research.

Major Honors

Ernest F. Fullam Award, Dudley Observatory (1986)
NSF General Workforce System Outstanding Performance Award (various years, 1992-2001)
NSF Director's Award for Superior Accomplishment (2002)

Ph.D. Students

Steven C. Kleiner, Ph.D. (Astronomy). Thesis: *Correlation Analysis of the Taurus Molecular Cloud Complex*. University of Massachusetts at Amherst, April 1985.

David K. Taylor, Ph.D. (Astronomy). Thesis: *Carbon Monoxide Isotopes and Clumping in Giant Molecular Clouds*. University of Massachusetts at Amherst, June 1989.

Thomas H. Jarrett, Ph.D. (Astronomy). Thesis: *The Faint End of the Stellar Luminosity Function.* University of Massachusetts at Amherst, February 1992.

Masters Dissertation Student

Charles A. Field, M.S. (Astronomy). Thesis: *Cosmic Grain Size Evolution*. University of Massachusetts at Amherst, May, 1988.

Doctoral Committees

Richard Arquilla, Ph.D. (Astronomy). Thesis: *The Structure and Angular Momentum Content of Dark Clouds*. University of Massachusetts at Amherst, July 1984.

José L. R. Marrero, Ph.D. (Physics). Thesis: *The QCD Ground State.* University of Massachusetts at Amherst, August 1985.

Steven D. Lord, Ph.D. (Astronomy). Thesis: *The Role of Molecular Clouds in the Star Formation Process as Observed in Two Grand Design Spirals*. University of Massachusetts at Amherst, May 1987.

Ye Cheng, Ph.D. (Physics). Thesis: *Resonance Excitation of Linear and Non-linear Spiral Density Waves in a Gaseous Disk*. City College of New York (CCNY), May 1987.

Dariusz C. Lis, Ph.D. (Astronomy). Thesis: *The Structure and Chemistry of the SGR B2 Molecular Cloud.* University of Massachusetts at Amherst, March 1989.

W.M. Kinzel, Ph.D. (Astronomy). Thesis: *Radio Outbursts in Extragalactic Radio Sources*. University of Massachusetts at Amherst, May 1989.

Philip S. Gribosky, Ph.D. (Physics). Thesis: *Finite Temperature Quantum Field Theory and Effective Lagrangians*. University of Massachusetts at Amherst, August 1989.

Young Chol Minh, Ph.D. (Astronomy). Thesis: *Radio Observations of Several Interstellar Molecules*. University of Massachusetts at Amherst, February 1990.

Kevin Olson, Ph.D. (Astronomy). Thesis: *Gas Dynamics in Interacting and Merging Galaxies*. University of Massachusetts at Amherst, February 1990.

Thomas S. Sotirelis, Ph.D. (Physics). Thesis: *A Truncated Bag Model of Hadrons.* University of Massachusetts at Amherst, 1991.

Youngung Lee, Ph.D. (Astronomy). Thesis: *Structure and Star Forming Activities of the Cold, Massive, Molecular Cloud G216-2.5*. University of Massachusetts at Amherst, September 1992.

Taoling Xie, Ph.D. (Astronomy). Thesis: *Shells, Outflows, and Star Formation in the Giant Molecular Cloud Monoceros R2.* University of Massachusetts at Amherst, September 1992.

Undergraduate Mentoring

Jessica Zane (University of Massachusetts at Amherst), Senior Research Paper (1987): *Father Hagen's Clouds and the IRAS Cirrus.*

Alexander Savello (Emory University): NRAO Summer Student (2008). Research project: *The Structure of the Starless Bok Globule CB4* (also poster paper with R. L. Dickman and D. C. Lis, presented at the 213th AAS Meeting, Long Beach CA, 2009).

Maxime Rischard (University of California at Berkeley): NRAO Summer Student (2009). Research Project: *A Search for Periodicities in the Millimeter-Wave Emission of the AGN OJ287.*

Daniel Calem (University of Virginia): NRAO Summer Student (2013). Research Project: The Red Sirius Problem and Ptolemy's *Almagest*

Concurrent Outside/Visiting Appointments

Visiting Scholar/Research Professor
Department of Astronomy, University of Virginia — July 2006 – present

Visiting Scholar (during NSF Sabbatical)
Astronomy Department, California Institute of Technology — November 2006 – Apr. 2007
Astronomy Department, University of Virginia — July 2006 – Oct. 2006; May 2007 – August 2007

NSF Embassy Fellow, Santiago, Chile
Detail to United States Department of State — September 2002 – Nov. 2002

Visiting Investigator (research appointment while at NSF)
DTM, Carnegie Institution of Washington — September 1995 –September 2001

Visiting Associate Professor
Astronomy Department, Wesleyan University — Spring semesters 1987 & 1989

External Service (1996 - present)

LSST Corporation: Treasurer (2014)

RadioAstron International Science Committee (RISC): NRAO Representative (2012-present)

LSST Board: NRAO Representative (2011- present)

DVA-1 Management Board: Chair (2011 – 2012)

Astro-2010 Decadal Survey: Chair, Study Group "International and Public-Private Partnerships" (2009-2010)

Long Wavelength Array: Member, LWA Executive Committee (2007-2010)

CONCyT/FONDACyT: Reviewer for Proposed Chilean Research Institutes (2001)

White House OSTP Delegate: OECD Megascience Forum (1996-1998)

Continuing Professional Education

Intensive Spanish (Berlitz School, 2002)
Technical Project Management (American Management Association, 1999)
Leadership for a Democratic Society (OPM: Federal Executive Institute, 1996)
Science, Technology and Public Policy (OPM: Western Management Development Center, 1994)

Societies

American Astronomical Society
American Physical Society
International Astronomical Union
Sigma Xi

Bibliography – Robert L. Dickman

Book

Molecular Clouds in the Milky Way and External Galaxies, edited by R.L. Dickman, R.L. Snell, and J.S. Young (Berlin:Springer-Verlag), 1988.

Scientific Papers

The Ratio of Carbon Monoxide to Molecular Hydrogen in Interstellar Dark Clouds. Dickman, R. L. Ph.D. Thesis, Columbia University Department of Physics (1976; Patrick Thaddeus, Advisor).

A Survey of Carbon Monoxide Emission in Dark Clouds. Dickman, R.L., *Ap.J.,* **202**, 50 (1975).

The Relation Between Carbon Monoxide and Visual Extinction in Cloud L134. Tucker, K.D., Dickman, R.L., Kutner, M.L., and Encrenaz, P.J. *Ap.J.,* **210**, 679 (1976).

Bok Globules. Dickman, R.L. *Scientific American,* **236(6)**, 66 (1977).

Isotope Ratios and Chemical Fractionation in L134. Dickman, R.L., Langer, W.D., McCutcheon, W.H., and Shuter, W.L.H., in *CNO Isotopes in Astrophysics,* ed., J. Audouze (Reidel: Dordrecht), p. 95 (1977).

The Ratio of Carbon Monoxide to Molecular Hydrogen in Interstellar Dark Clouds. Dickman, R.L., *Ap.J. (Suppl.),* **37**, 407 (1978).

Star Counts and Visual Extinctions in Dark Nebulae. Dickman, R.L., *A.J.,* **83**, 363 (1978).

Ring Structure in the Mon R1 Molecular Clouds. Kutner, M.L., Dickman, R.L., Tucker, K.D., and Machnik, D.E. *Ap.J.,* **232**, 724 (1979).

Carbon Monoxide Isotope Fractionation in the Dust Cloud Lynds 134. Dickman, R.L., McCutcheon, W.H., and Shuter, W.L.H. *Ap.J.,* **234**, 100 (1979).

Observations of CO in the Perseus Arm. Yuan, C., and Dickman, R. *Proc. IAU Symp. No. 84,* (1979).

The $^{13}CO/C^{18}O$ Ratio in Interstellar Dark Clouds: Evidence for Isotope Fractionation. McCutcheon, W.H., Dickman, R.L., Shuter, W.L.H., and Roger, R.S. *Ap.J.,* **237**, 9 (1980).

The $^{12}C/^{13}C$ Ratio in Interstellar Dark Clouds. McCutcheon, W.H., Dickman, R.L., Shuter, W.L.H., and Roger, R.S. *Proc. IAU Symposium No. 87,* p. 411 (1980).

Cryogenic Parametric Amplifier Performance at 4.2K. Wilson, W.J., Dickman, R.L., and Berry, G.G. *IEEE Trans. MTT,* **MTT 28**, 186 (1980).

Observations of Millimeter-Wave Emission from Interstellar HCO^+, HCN, HNC, and CCH. Baudry, A., Combes, F. Perault, M., and Dickman, R.L. *Astron. Ap.,* **85**, 244 (1980).

Turbulence in the Dust Cloud Lynds 134 — High Resolution Observations of 6-cm Formaldehyde Absorption. Dickman, R.L., Kutner, M.L., Pasachoff, J.M., and Tucker, K.D. *Ap.J.,* **238**, 853 (1980).

Molecular Clouds Associated with Reflection Nebulae: I. A Survey of Carbon Monoxide Emission. Kutner, M.L., Machnik, D.E., Tucker, K.D., and Dickman, R.L. *Ap.J.,* **237**, 734 (1980).

Interstellar Abundances of CO and CN Molecules. Whittet, D.C.B., McNally, D., and Dickman, R.L. In *The First Year of IUE*, ed. A.J. Willis (London: University College), p. 31 (1980).

Search for Interstellar Pyrrole and Furan. Kutner, M.L., Machnik, D.E., Tucker, K.D., and Dickman, R.L. *Ap.J.,* **242**, 541 (1980).

Velocity Structure in the Canis Major R1 Molecular Clouds. Machnik, D.E., Kutner, M.L., Dickman, R.L., and Tucker, K.D. *Ap.J.,* **242**, 121 (1980).

Super-Schottky Mixer Performance at 92 GHz. Dickman, R.L., Wilson, W.J., and Berry, G.G. *IEEE Trans. MTT,* **MTT 29**, 788 (1981).

The Millimeter-Wave Super Schottky Detector Silver, A.H., Pederson, R.J., McColl, M., Dickman, R.L., and Wilson, W.J. *IEEE Trans. Magnetics,* **MAG 17**, 698 (1981).

The Molecular Cloud Complex Near IC 5146. McCutcheon, W.H., Roger, R.S., and Dickman, R.L. *Ap.J.,* **256**, 139 (1982).

Interstellar Abundances of Carbon-Bearing Diatomic Molecules. Dickman, R.L., McNally, D., Blades, C., Whittet, D.C.B., and Somerville, W. *Ap.J. Suppl.,* **53**, 55 (1983).

The $[HCO^+]/[HOC^+]$ Abundance Ratio in Molecular Clouds. Woods, R.C., Gudeman, C.S., Dickman, R.L., Goldsmith, P.F., Huguenin, G.R., Irvine, W.M., Hjalmarson, Å, Nyman, L.-Å, and Olofsson, H. *Ap.J.,* **270**, 583 (1983).

A Gravitationally Stable Bok Globule. Dickman, R.L., and Clemens, D.P. *Ap.J.,* **271**, 143 (1983).

A New Method for Determining the Faint End of the Luminosity Function. Herbst, W., and Dickman, R.L. In *IAU Colloquim No. 76*, ed. A.G.D. Philip (L. Davis Press: Schenectady), p. 187 (1983).

Large-Scale Structure of the Taurus Molecular Complex. I. Density Fluctuations — A Fossil Jeans Length? Kleiner, S.C., and Dickman, R.L. *Ap.J.,* **286**, 255 (1984).

Super-Schottky Mixer Performance at 92 GHz. Dickman, R.L., Wilson, W.J., and Berry, G.G. 1984, in *Microwave and Millimeter-Wave Mixers*, ed. E.L. Kollberg (New York: IEEE Press), p. 134.

Large-Scale Structure of the Taurus Molecular Complex. II. Velocity Fluctuations and Turbulence. Kleiner, S.C., and Dickman, R.L. *Ap.J.,* **295**, 466 (1985)

Turbulence in Molecular Clouds. Dickman, R.L. Invited review chapter in *Protostars and Planets II,* ed. M.S. Matthews and D.C. Black (Tucson: U. of Arizona), p. 150 (1985).

Large-Scale Structure of the Taurus Molecular Complex. III. Methods for Turbulence. Dickman, R.L., and Kleiner, S.C. *Ap.J.,* **295,** 479 (1985).

Search for Interstellar Molecular Oxygen. Goldsmith, P.F., Snell, R.L., Erickson, N.R., Dickman, R.L., Schloerb, F.P., and Irvine, W.M. *Ap.J.,* **289**, 613 (1985).

Carbon Monoxide as an Extragalactic Mass Tracer. Dickman, R. L., Snell, R. L., and Schloerb, F.P. *Ap.J.,* **309,** 326 (1986).

IRAS Sources Associated with Shocked Gas Regions in IC 443. Huang, Y.L., Dickman, R.L., and Snell, R.L. *Ap.J. (Letters),* **302,** L63 (1986).

The Lynds 204 Complex: Magnetically Controlled Evolution? McCutcheon, W.H., Vrba, F.J., Dickman, R.L., and Clemens, D.P. *Ap.J.,* **309,** 619 (1986).

21-cm Line Study of Large-Scale Density Fluctuations in the Taurus Molecular Complex. Shuter, W.L.H., Dickman, R.L., and Klatt, C. *IAU Symp. No. 115: Star Forming Regions* (eds. M. Peimbert and J. Jugaku), p.67 (1986).

Small-Scale Structure of the Taurus Molecular Complex: Turbulence in Heiles' Cloud 2. Kleiner, S.C., and Dickman, R.L. *Ap.J.,* **312,** 837 (1987).

Molecular Clouds and the Gould Belt. Taylor, D.K., Dickman, R.L., and Scoville, N.Z. *Ap.J.*, **315,** 104 (1987).

VLBI Structure of 3C84 at 89 GHz. Backer, D., Wright, M.C.H., Plambeck, R.L., Carlstrom, J., Masson, C.R., Moffet, A.T., Readhead, A.C.S, Woody, D. Rogers, A.E.E., Moran, J.M., Predmore, C.R., and Dickman, R.L. *Ap.J.,* **322,** 74 (1987).

Velocity Waves in 21cm Self Absorption Towards the Taurus Molecular Complex. Shuter, W.L.H., Dickman, R.L., and Klatt, C. *Ap. J. (Letters),* **322,** L103 (1987).

Molecular Outflows Associated with Bright Far Infrared Sources. Snell, R.L., Huang, Y.-L., Dickman, R.L., and Claussen, M.C. *Ap. J.,* **325,** 853 (1988).

Observations of a Possible 35-minute Periodicity in OJ 287 at 7 mm Wavelength. Kinzel, W.M., Dickman, R.L., and Predmore, C.R. *Nature,* **331,** No. 6151, 48 (1988).

Kinematics of 21cm Self-Absorption Toward the Taurus Molecular Complex. Shuter, W.L.H., and Dickman, R.L., in *The Outer Galaxy,* edited by F. J. Lockman (Springer-Verlag:Berlin), pp. 171-177 (1988).

Linear Polarization of Millimeter-Wave Emission Lines in Clouds without Large Velocity Gradients. Lis, D.C., Goldsmith, P.F., Dickman, R.L., Predmore, C.R., Omont, A., and Cernicharo, J. *Ap. J.,* **328,** 304 (1988).

Evolution of the Sub-Milliarcsecond Nucleus in 3C84 at 100 GHz. Wright, M.C.H., Backer, D.C., Carlstrom, J.E, Plambeck, R.L., Marr, J., Rogers, A.E.E., Masson, C.R., Moffett, A.T., Woody, D., Readhead, A.C.S., Predmore, C.R., Dickman, R.L., and Moran, J.M. *Ap. J. (Letters)*, **329,** L61 (1988).

Status of VLBI at 3-mm Wavelength. Masson, C.R., Moffett, A.T., Readhead, A.C.S., Woody, D., Predmore, C.R., Dickman, R.L., Rogers, A.E.E., Moran, J.M., Wright, M.C.H., Plambeck, R.L., Carlstrom, J.E., and Backer, D.C., in *Proceedings of the 1987 MPIfR Workshop on Millimeter VLBI,* (Bonn: Witzel, 1988).

Column Density and Velocity Waves in 21 cm Self Absorption Towards the Taurus Molecular Complex. Shuter, W.L.H., and Dickman, R.L., in *Molecular Clouds in the Milky Way and External Galaxies*, edited by R.L. Dickman, R.L. Snell and J.S. Young (Berlin: Springer Verlag), p. 231 (1988).

Recent Molecular Studies of SNR IC443: Some New Results for 'Shock" Chemistry. Ziurys, L.M., Snell, R.L., and Dickman, R.L., in *Molecular Clouds in the Milky Way and External Galaxies,* edited by R.L. Dickman, R.L. Snell, and J.S. Young (Berlin:Springer Verlag), p. 184 (1988).

A Study of Carbon Monoxide Isotopes in Molecular Clouds: The Effects of Clumping and Non-LTE Conditions. Taylor, D.K., and Dickman, R.L., in *Molecular Clouds in the Milky Way and External Galaxies,* edited by R.L. Dickman, R.L. Snell, and J.S. Young (Berlin: Springer Verlag), p. 193 (1988).

Multifrequency Survey of the Intergalactic Cloud in the M96 Group. Schneider, S., Young, J.S., Dickman, R.L., and Claussen, M.C., *et al. A.J.,* **97,** 666 (1989).

H_2 Masses in the Interstellar Medium: Current Techniques and Selected Problem Areas. Dickman, R.L. Review chapter in *Molecular Clouds in the Milky Way and External Galaxies,* edited by R.L. Dickman, R.L. Snell, and J.S. Young (Berlin: Springer Verlag), p. 55 (1988).

An Unbiased Survey of Molecular Outflows Associated with Bright Far-Infrared Sources. Snell, R.L., Huang, Y.-L., Dickman, R.L., and Claussen, M.J., in *Interstellar Matter,* eds. J. Moran and P.T.P. Ho (New York: Gordon and Breach), p. 211 (1988).

A Reassessment of the Double Isotope Ratio [^{13}CO]/[C^{18}O] in Molecular Clouds. Taylor, David K. and Dickman, R.L. *Ap. J.,* **341,** 293 (1989).

Shock Chemistry in the Molecular Clouds Associated with SNR IC443 Ziurys, L.M., Snell, R.L., and Dickman, R.L. *Ap. J.,* **341,** 857 (1989).

Dust in the Rho Ophiuchi Molecular Cloud: IRAS and Optical Observations. Dickman, R.L., Jarrett, T., and Herbst, W. *Ap. J.*, **345,** 881 (1989).

Probing the Lower Main Sequence with Molecular Clouds. Dickman, R.L., Jarrett, T.H., and Herbst, W., in *Proceedings of the Kona Symposium on Millimeter and Submillimeter Astronomy*, ed. A. Webster (Dordrecht: Kluwer), 171 (1990).

Molecular Outflows Associated with a Flux-Limited Sample of Bright Far-Infrared Sources. Snell, R.L., Dickman, R.L., and Huang, Y.-L. *Ap. J.,* **352,** 139 (1990).

The ^{13}CO-A_v Correlation at Very High Extinctions: The ρ Ophiuchi Molecular Cloud. Dickman, R.L. and Herbst, W., *Ap.J.,* **357,** 531 (1990).

Magnetically-Controlled Gravitational Instabilities in the Taurus Molecular Complex. Shuter, W.L.H., and Dickman, R.L., in *I.A.U. Symposium #140: Galactic and Extragalactic Magnetic Field*s, eds. R. Beck, P. P. Kronberg, and R. Wielebinski (Kluwer: Dordrecht), p. 314 (1990).

Analysis of ^{12}CO and ^{13}CO Emission in a 3 Square Degree Region of the Galactic Plane between l = 23°-25°. Lee, Y., Snell, R.L., and Dickman, R.L. *Ap.J.,* **355,** 536 (1990).

A Search for Scale-Dependent Morphology in Five Molecular Cloud Complexes. Dickman, R.L., Horvath, M.A., and Margulis, M. *Ap. J.,* **365,** 586 (1991).

The Microarcsecond Structure of 3C273 at 3 mm. Bååth, L.B., Paidin, S., Woody, D., Rogers, A.E.E., Wright, M.C.H., Zensus, A., Kus, A.J., Backer, D.C., Booth, R.S., Carlstrom, J.E., Dickman, R.L., Emerson, D.T., Hirabayashi, H., Hodges, M.W., Inoue, M., Moran, J.M., Morimoto, M., Payne, J., Plambeck, R.L., Predmore, C.R., and Ronnang, A. *Astronomy and Ap.,* **241**, L1 (1991).

The Smoothness of CO Line Profiles in Orion: Implications for Clumsiness. Tuber, J.A., Goldsmith, P.F., and Dickman, R.L. *Ap. J.,* **375,** 635 (1991).

Star Counts and Carbon Monoxide Observations of Madeline's Cloud. Lee, Y., Snell, R.L., and Dickman R.L. *Ap. J.,* **379,** 639 (1991).

A Search for Remnant Stellar Disks Around Young Nearby Stars. Skrutskie, M., Snell, R.L., Dutkevitch, D., Strom, S.E., Schloerb, F.P., and Dickman, R.L., *A.J.,* **102,** 1749 (1991).

VLBI Observations of Active Galactic Nuclei at 3 mm. Bååth, L.B., Rogers, A.E.E., Inoue, M., Paidin, S., Zensus, A., Kus, A.J., Backer, D.C., Booth, R.S., Carlstrom, J.E., Dickman, R.L., Emerson, D.T., Hirabayashi, H., Hodges, M.W., Moran, J.M., Morimoto, M., Payne, J., Plambeck, R.L., Predmore, C.R., Rönnäng, B., and Woody, D. *Astron. and Ap.,* **241,** L1, (1992).

Structure and Kinematics of Dense Gas in the Supernova Remnant IC 443. Dickman, R.L., Snell, R.L., Ziurys, L.M., and Huang, Y.-L., *Ap.J.,* **400,** 203 (1992).

Bok Globules: Observations and Interpretation. Dickman, R.L., *Reference Encyclopedia of Astronomy and Astrophysics*, (New York: Ubell) (1992).

The Nearby 2$M_\odot$ Bok Globule LBN 11: Sub-Sonic Molecular Clumps in a Magnetic Environment. Clemens, D.P., Dickman, R.L. and Ciardi, D.R. *A.J.*, **104,** 2165 (1992).

High Resolution Images of Shocked Molecular Clumps in the SNR IC443. Tuber, J.A., Snell, R.L., Dickman, R.L., and Ziurys, L.M. *Ap.J.,* **421,** 570 (1994).

An Optical Study of the Faint End of the Stellar Luminosity Function. Jarrett, T.H., Dickman, R.L., and Herbst, W. *Ap.J.,* **424,** 852 (1994).

The Cold, Massive Molecular Cloud G216-2.5: II. Structure and Kinematics. Lee, Y., Snell, R.L. and Dickman, R.L., *Ap.J.,* **432,** 167 (1994).

Global 3- and 7-mm VLBI Observations of OJ287. Tateyama, C.E., Inoue, M., Krichbaum, T.P., Bååth, L.B., Kameno, S., Rogers, A.E.E., Alberdi, A., Backer, D.C., Bartel, N., Booth, R.S., Burke, B.F., Carlstrom, J.E., Dhawan, V., Dickman, R.L., Emerson, D.T., Hirabayashi, H., Hodges, M.W., Hummel, C.A., Graham, D.A., Johnston, K.J., Kobayashi, H., Kus, A.J., Padin, S., Pauliny-Toth, I.I.K., Plambeck, R.L., Predmore, C.R., Quirrenbach, A., Lawrence, C.R., Lamb, J., Marcaide, J.M., Moran, J.M., Morimoto, M., Readhead, A.C.S., Rönnäng, B.O., Shapiro, I.I., Spencer, J.H., Witzel, A., Woody, D., Wright, M.C.H., Zensus, A. *PASJ,* **48**, 37 (1996).

The Cold, Massive Molecular Cloud G216-2.5: III. Infrared Emission. Lee, Y., Snell, R.L. and Dickman, R.L., *Ap.J.,* **472**, 275 (1996).

International and Public-Private Partnerships. R. L. Dickman (Chair), Michael Bolte, George Helou, James Hesser, Wesley Huntress, Rolf-Peter Kudritzki, Richard L. Kelley, Antonella Nota, Bradley Peterson. *Study Group Report to Astro-2010 Decadal Survey*, October 2009.

Constructing the EVLA While Operating the VLA. Robert Dickman, Mark McKinnon, Claire Chandler, Rick Perley, Michael Rupen, Joe McMullin, Bryan Butler, Barry Clark, and Ken Sowinski. Invited talk, SPIE Astronomical Instrumentation Conference, *Observational Frontiers of Astronomy for the New Decade*, June 2010.

Radio Astronomy in the LSST Era (Conference Summary). Joseph W. Lazio, Amy Kimball, S. Chatterjee, J. J Condon, R. L. Dickman, M. T. Hunyh, Matt J. Jarvis, Mario Jurič, N. E. Kassim, S. T. Myers, Samaya Nissanke, B. A. Zauderer, *PASP* (February 2014).

Extremely Bright Submillimeter Galaxies Beyond the Lupus-I Star-forming region. Tamura, Y., Kawabe, R., Shimajiri, Y., Tsukagoshi, T., Nakajima, Y., Oasa, Y., Wilner, D. J., Chandler, C. J., Saigo, K., Tomida, K., Yun, M. S., Taniguchi, A., Kohno, K., Hatsukade, B., Aretxaga, I., Austermann, J., E., Dickman, R., Ezawa, H., Goss**,** W. M., Hayashi, M., Hughes, D. M., Hiramatsu, M., Inutsuka, S., Ohashi, N., Oshima, T., Scott, K.S., and Wilson**,** G. W., *ApJ* (submitted, November 2014).

Invited Talks (2006 onwards)

U.S. Astronomy Facilities For the 21st Century: SKA Workshop (August 2006, Tucson)

Testing Classical Gravity: Herzberg Institute of Astrophysics (April 2007, Victoria BC)

Testing Gravity with Interstellar Clouds: Caltech, UIUC, NRAO-SO (February April and July 2007)

Testing MOND in the Galaxy: NRAO-CV (September 2007, Charlottesville, VA)

The Starless Bok Globule CB4: ASTRON and Rijks Universiteit Groningen (May 2009, Netherlands)

Progress Report for International and Private Partnerships Study Group: Invited Talk, Astro-2010 Decadal Survey (May 2009, Pasadena, CA).

Invited Talks (continued)

Constructing the EVLA While Operating the VLA: SPIE Astronomical Instrumentation Conference, *Observational Frontiers of Astronomy for the New Decade* (June 2010, Miami, FL).

Commissioning the EVLA: Challenges and Emerging Science. NASA Jet Propulsion Laboratory (December 2010, Pasadena, CA)

The VLBA: Toward a New Operating Paradigm. NRAO VLBA Workshop (January 2011, Charlottesville, VA)

From Spherical Cows to Modified Gravity: The Bok Globule CB4 University of New Mexico (February 2011, Albuquerque, NM).

A Roadmap for NRAO: 2012-2020 NRAO CDL – ELF talk (September 22, 2011, Charlottesville, VA).

From Spherical Cows to Modified Gravity: The External Field Effect in MOND – Max Planck Institut für Radioastronomie (November 7, 2011, Bonn, Germany).

New Developments on the Old Red Sirius Problem. Colloquium, NRAO DSOC (August 22, 2013, Socorro, NM).

Making the Most of Opportunity: Lessons in Radio Telescope Construction. XAO STaRT Workshop (September 11, 2013, Urumqi, China).

Scientific Activities in VLBI with NRAO. NAOC/ISSI Workshop (September 16, 2013, Beijing, China).

NRAO Central Development Lab: An Overview. Presentation to REU students, (July 27, 2014, Charlottesville, VA).

Making ALMA Happen: ALMA Genesis, What (and Why) NSF Is Like It Is Now, and Looking for the NBT. Colloquium at Dominion Radio Astrophysical Observatory (August 14, 2014, Penticton, Canada).