

Tereasa G. Brainerd
Curriculum Vitae

Boston University
Department of Astronomy
725 Commonwealth Ave.
Boston, MA 02215

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Education

The Ohio State University
Columbus OH, USA
Ph.D. in Astronomy, 1992
Dissertation: *A Study of Properties of Dark Galaxy Halos in a CDM Universe using N-body Computer Simulations*
Advisor: Jens V. Villumsen

University of Alberta
Edmonton AB, Canada
B.Sc. Honours Physics, 1987

**Professional
Experience**

Chair, Department of Astronomy Boston University	07/2011 – present
Associate Chair, Department of Astronomy Boston University	08/2010 – 06/2011
Director, Institute for Astrophysical Research Boston University	07/2005 – 06/2011
Associate Professor of Astronomy Boston University	09/2001 – present
Assistant Professor of Astronomy Boston University	09/1995 – 08/2001
Postdoctoral Research Associate Los Alamos National Laboratory Advisor: Wojciech H. Zurek	09/1994 – 08/1995
Postdoctoral Research Fellow California Institute of Technology Advisor: Roger D. Blandford	09/1992 – 08/1994

**Research
Interests**

Cosmology, Theoretical Astrophysics, Astrophysical Applications of Gravitational Lensing, Galaxy Clustering, Dynamics of Satellite Galaxies, Formation of Structure in the Universe, Computational Astrophysics

Manuscript Review Service	The Astrophysical Journal (Parts I and II)	
	Astronomy & Astrophysics	
	The Astronomical Journal	
	Monthly Notices of the Royal Astronomical Society	
	ISRN Astronomy & Astrophysics	
	American Journal of Physics	
Grant Review Service	National Science Foundation (MPS Astronomy & Astrophysics):	
	Extragalactic Astronomy & Cosmology, CAREER, and Postdoctoral Fellows programs	
	NASA:	
	Astrophysical Data Processing, Long-Term Space Astrophysics, and Astrophysics Theory programs	
	Hubble Space Telescope Science Institute:	
	Hubble Space Telescope Cycles 10, 12, and 20	
	Research Corporation	
	Academy of Finland	
	Netherlands Organization for Scientific Research (NWO)	
	Deutsche Forschungsgemeinschaft (DFG)	
	Government of Germany	
	National Research Council (NSERC)	
	Government of Canada	
Additional Professional Service	Editorial Board Member	12/2010 – 01/2014
	ISRN Astronomy & Astrophysics	
	Local Organizer and Host	09/2010
	American Astronomical Society Town Hall Meeting Boston University, Boston, MA	
	Expert Advisor to the Faculty of Science at Stockholm University in their search for a Senior Lecturer in Observational Cosmology	2007
	Heinemann Prize Committee American Astronomical Society Chair of the Committee in 2007	2005 – 2007
	Publications Board Member	2001 – 2003
	Astronomical Society of the Pacific	

Member, Local Organizing Committee <i>Milky Way Surveys: The Structure and Evolution of our Galaxy</i> International astrophysics conference at Boston University	2003
External Examiner for international PhD dissertations: Bryan Gillis, University of Waterloo (Canada)	2013
Catherine Trott, University of Melbourne (Australia)	2005
Christofer Gunnarsson, Stockholm University (Sweden)	2005
Andreas Ortman Jaunsen, University of Oslo (Norway)	2000
Member, Scientific Organizing Committee National Academy of Sciences <i>11th Annual Frontiers of Science Symposium</i> Irvine, CA	1999
Chair, Local Organizing Committee Co-Chair, Scientific Organizing Committee <i>Gravitational Lensing: Recent Progress & Future Goals</i> International astrophysics conference at Boston University	1999

**Additional
Service to
Boston
University**

Graduate Admissions Committee Member Department of Astronomy	2011 – 2013
Promotion and Tenure Committee College of Arts and Sciences	2008 – 2009
Perkins Telescope Time Allocation Committee Institute for Astrophysical Research	2004 – 2008
Charles River Campus Conflict of Interest Committee Office of the Provost	2004 – 2007
Interim Director of Graduate Studies Department of Astronomy	2006 – 2007
Director of Graduate Studies Department of Astronomy	2003 – 2005
Chair, MA Comprehensive Examination/PhD Written Qualifying Examination Committee Department of Astronomy	2003 – 2010
Faculty Council	2002 – 2003
Natural Sciences Curriculum Committee College of Arts and Sciences	2000 – 2001

	Director of Undergraduate Studies Department of Astronomy	1999 – 2000
	Summer Undergraduate Freshman Academic Advising College of Arts and Sciences	1998 – 2011
	Director of Graduate Admissions Department of Astronomy	1995 – 1999
Community Service	Advisory Board Member Science for the Public http://www.scienceforthepublic.org	2010 – 05/2014
	Feline Veterinary Grant Proposal Review Panel The International Feline Foundation http://www.theinternationalfelinefoundation.com Panel Chair in 2010 and 2012, panel Co-Chair in 2008 and 2009	2008, 2009, 2010, 2012

Tereasa G. Brainerd
Lecture Courses at Boston University

CAS AS102: The Astronomical Universe (undergraduate non-science majors)

<http://firedrake.bu.edu/AS102/AS102.html>

Fall 1995, 81 students, 1 teaching fellow

Fall 1997, 90 students, 1 teaching fellow

Spring 2010, 46 students, 4 honors students, 2 teaching fellows

CAS CC105: Core Curriculum Natural Sciences I (undergraduate non-science majors)

Fall 2003, 46 students

Fall 2005, 47 students

Fall 2007, 44 students

Fall 2009, 27 students

CAS AS109: Cosmology (undergraduate non-science majors)

Spring 1996, 39 students, 1 teaching fellow

Spring 1998, 65 students, 1 teaching fellow

Spring 1999, 92 students, 1 teaching fellow

Spring 2000, 69 students, 1 teaching fellow

Spring 2001, 83 students, 1 teaching fellow

Spring 2003, 46 students, 1 teaching fellow

Spring 2005, 67 students, 1 teaching fellow

CAS AS312: Stellar and Galactic Astronomy (sophomore Astronomy majors)

Spring 2006, 8 students

CAS AS413: Extragalactic Astronomy and Cosmology (junior and senior Astronomy majors)

<http://firedrake.bu.edu/AS413/AS413.html>

Fall 1996, 21 students

Fall 1998, 23 students

Fall 2000, 19 students

Fall 2002, 28 students

Fall 2004, 20 students

Fall 2006, 18 students

Fall 2008, 17 students

Fall 2010, 14 students

Fall 2012, 19 students

Fall 2014, 13 students

GRS AS725: Gravitational Astrophysics (first and second year graduate students)

Fall 1999, 9 students

Spring 2004, 14 students

Spring 2008, 13 students

Spring 2012, 15 students

GRS AS759: Galaxies and Cosmology (advanced graduate students)

Spring 1997, 3 students
Spring 2006, 9 students
Spring 2009, 5 students
Fall 2013, 6 Students

Tereasa G. Brainerd

Direct Supervision of Research Students at Boston University

**Astronomy
Undergraduates¹**

David Goldberg (BA 1996, with Distinction)
Michael Specian (BA 2003, with Distinction)
Kelly Denney (BA 2004, with Distinction)
Nicholas McConnell (BA 2006)
Trey Wenger (BA 2014)
Kelly Blumenthal (BA 2014)
Joseph Serigano (BA 2014)
Patrick Koh (BA expected 2016)

**Astronomy
MA Students**

Charles Paxson (MA 1998)
Casey Law (MA 2000)

**Astronomy
PhD Students**

Candace Oaxaca Wright (PhD 2002)
Ingolfur Agustsson (PhD 2012)
Paul Howell (PhD expected 2015)
Laura Sturch (co-advisor with Dr. Barry Madore at the Observatories
of the Carnegie Institution of Washington; left PhD program
in December 2013)

**Science and
Religion PhD
Students²**

Jeffrey Edmonds (2008)
Timothy Manness (2013)

¹The qualification “with Distinction” indicates that the student completed a substantial research project in the senior year, culminating in a written senior thesis that was defended in a formal oral examination.

²Doctoral students enrolled in BU's Science and Religion program must demonstrate scientific competency by carrying out a semester of directed research with a faculty member in the Natural Sciences as part of their degree program. Each of these students specializes in a particular scientific discipline (e.g., biology, chemistry, etc.). The two students whom I have supervised declared specialties in cosmology as part of their doctoral studies.

Tereasa G. Brainerd

Funded Grants as Principal Investigator

Total federal funding as of September 2014: **\$1.4M**

Agency	Proposal Title	Funding Period	Total Funding
NASA (Astrophysics Theory)	Theoretical Studies of Weak Gravitational Lensing	02/01/2013 – 01/31/2016	\$297,225
NSF (Women in Networks Program)	Locating Isolated Weak Galaxy Lenses in the Sloan Digital Sky Survey	07/01/2010 – 06/30/2011	\$19,846
NSF (Astronomy & Astrophysics)	Bright Field Galaxies and their Dark Matter Halos	08/01/2007 – 07/31/2011	\$286,239
NSF (Astronomy & Astrophysics)	Dynamics of Satellite Galaxies	08/01/2004 – 07/31/2007	\$118,969
NSF (Astronomy & Astrophysics)	Cosmological Applications of Gravitational Lensing	05/01/2001 – 04/30/2005	\$242,736
NSF (Astronomy & Astrophysics)	Gravitational Lensing: Recent Progress and Future Goals (International Astrophysics Conference)	07/01/1999 – 06/30/2000	\$14,996
NASA	Gravitational Lensing: Recent Progress and Future Goals (International Astrophysics Conference)	07/01/1999 – 06/30/2000	\$13,996
Hubble Space Telescope Science Institute	Constraints on the Flattening of Dark Matter Halos from Galaxy-Galaxy Lensing	08/01/2000 – 08/31/2002	\$53,377
Hubble Space Telescope Science Institute	The Interplay Between Stellar Evolution and Stellar Dynamics (Hubble Postdoctoral Fellowship for Dr. Simon Portegies-Zwart)	12/01/1998 – 11/30/2001	\$137,609
NSF (Astronomy & Astrophysics)	Numerical Studies of Rich Clusters	05/01/1997 – 04/30/2001	\$212,436

Tereasa G. Brainerd
Citations of Articles in the Refereed Literature

Source: SAO/NASA Astrophysics Data System (<http://adsabs.harvard.edu>)

Total number of citations as of September 2014: **1,322**

Authors <i>Italics</i> indicate student supervised	Journal Reference	Title of Article	Citations to Date
Brainerd, T. G.; Blandford, R. D. & Smail, I.	ApJ, 466, 623 (1996)	Weak Gravitational Lensing by Galaxies	316
Blandford, R. D.; Saust, A.-B.; Brainerd, T. G. & Villumsen, J. V.	MNRAS, 251, 600 (1991)	The Distortion of Distant Galaxy Images by Large-Scale Structure	252
<i>Wright, C. O.</i> & Brainerd, T. G.	ApJ, 534, 34 (2000)	Gravitational Lensing by NFW Halos	175
Brainerd, T. G.	ApJ, 628, L101 (2005)	Anisotropic Distribution of SDSS Satellite Galaxies: Planar (not Polar) Alignment	79
Brainerd, T. G.; Scherrer, R. J. & Villumsen, J. V.	ApJ, 418, 570 (1993)	Linear Evolution of the Gravitational Potential: A New Approximation for the Nonlinear Evolution of Large-Scale Structure	68
Brainerd, T. G.; Smail, I. & Mould, J. R.	MNRAS, 275, 781 (1995)	Evolution in the Clustering of Galaxies to $r=26$	60
Mould, J.; Blandford, R.; Villumsen, J.; Brainerd, T.; Smail, I.; Small, T. & Kells, W.	MNRAS, 271, 3 (1994)	A Search for Weak Distortion of Galaxy Images by Large-Scale Structure	59
<i>Agustsson, I.</i> & Brainerd, T. G.	ApJ, 644, L25 (2006)	The Orientation of Satellite Galaxies: Evidence of Elongation in the Direction of the Host	47
Brainerd, T. G. & Villumsen, J. V.	ApJ, 394, 409 (1992)	The Mass Function of Galaxy Halos in a Cold Dark Matter Universe	40
Brainerd, T. G. & <i>Specian, M. A.</i>	ApJ, 593, L7 (2003)	Mass-to-Light Ratios of 2dF Galaxies	40
Brainerd, T. G. &	ApJ, 431, 477	On the Evolution of Clustering and the	34

Villumsen, J. V.	(1994)	Biased Galaxy Formation Scenario	
Agustsson, I. & Brainerd, T. G.	ApJ, 650, 550 (2006)	The Locations of Satellite Galaxies in a Λ CDM Universe	29
Agustsson, I. & Brainerd, T. G.	ApJ, 709, 132 (2010)	Anisotropic Locations of Satellite Galaxies: Clues to the Orientations of Galaxies within their Dark Matter Halos	31
Brainerd, T. G. & Smail, I.	ApJ, 494, L137 (1998)	A Constant Clustering Amplitude for Faint Galaxies?	19
Brainerd, T. G.; Goldberg, D. M. & Villumsen, J. V.	ApJ, 502, 505 (1998)	High-Resolution Simulations of Cluster Formation	13
Brainerd, T. G.; Bromley, B. C.; Warren, M. S. & Zurek, W. H.	ApJ, 464, L103 (1996)	Velocity Dispersion and the Redshift-Space Power Spectrum	10
Brainerd, T. G. & Villumsen, J. V.	ApJ, 425, 403 (1994)	The Power Spectra of Dark Halos in a Cold Dark Matter Universe	11
Brainerd, T. G. & Villumsen, J. V.	ApJ, 400, 398 (1992)	The Spatial Correlation Properties of Galaxy Halos in a Cold Dark Matter Universe	9
Brainerd, T. G. & Villumsen, J. V.	ApJ, 436, 528 (1994)	On the Peculiar Velocity Field of a CDM Universe	6
Howell, P. J. & Brainerd, T. G.	MNRAS, 407, 891 (2010)	Galaxy-Galaxy Lensing by Non-Spherical Haloes – I. Theoretical Considerations	8
Brainerd, T. G.	ApJ, 713, 603 (2010)	Multiple Weak Deflections in Galaxy-Galaxy Lensing	6
Brainerd, T. G. & Villumsen, J. V.	ApJ, 415, L67 (1993)	The Redshift Space Power Spectrum of Galaxies in a Cold Dark Matter Universe	4
Brainerd, T. G.; Wright, C. O. ; Goldberg, D. M. & Villumsen, J. V.	ApJ, 524, 34 (1999)	A Comparison of Simple Mass Estimators for Galaxy Clusters	4
Agustsson, I. & Brainerd, T. G.	ISRN AA, doi : 10.5402 / 2011/ 958973 (2011)	Locations of Satellite Galaxies in the Two-Degree Galaxy Redshift Survey	2

Journal Abbreviations

ApJ: The Astrophysical Journal

MNRAS: Monthly Notices of the Royal Astronomical Society

ISRN AA: International Scholarly Research Network, Astronomy & Astrophysics

Tereasa G. Brainerd
Scholarly Presentations

Invited Seminars and Colloquia:

Bright Galaxies and their Dark Matter Halos

Argonne National Laboratory, High Energy Physics Seminar, June 2013

Bright Galaxies and their Dark Matter Halos

University of Toledo Physics Colloquium, August 2012

Clues to the Orientations of Bright Galaxies within their Dark Matter Halos

University of Massachusetts (Amherst) Astronomy Colloquium, September 2011

Seeing the Un-seeable: Clues to the Orientations of Galaxies Inside their Dark Matter Halos

Boston University Astrophysics Colloquium, September 2010

Seeing the Un-seeable: Clues to the Orientations of Galaxies Inside their Dark Matter Halos

Drexel University Physics Colloquium, June 2010

Large-Scale Intrinsic Alignments of Galaxies

Brandeis University Physics Colloquium, September 2009

Constraints on Dark Matter Halos from Satellite Galaxies

University of Massachusetts (Lowell) Physics Colloquium, September 2006

New Constraints on CDM Halos from Satellite Galaxies and Weak Lensing: The view from CAS 514B

Boston University Astrophysics Colloquium, February 2006

Satellite Galaxies and CDM Halos

Michigan State University Astrophysics Colloquium, January 2006

Mass Estimators for Field Galaxies

University of Toronto (Canada) Astrophysics Colloquium, February 2004

Mass Estimators for Field Galaxies

University of Waterloo (Canada) Astrophysics Seminar, February 2004

Mass-to-Light Ratios of 2dFGRS Galaxies

Boston University Astrophysics Colloquium, December 2003

Multiple Deflections in the HDF-North

The Ohio State University Astrophysics Colloquium, January 2003

Galaxy-Galaxy Lensing: THE Tool for Constraining Galaxy Evolution (?)

Harvard-Smithsonian Center for Astrophysics Optical/IR Seminar, April 2002

Gravitational Optics: Tracing Dark Matter in the Universe

Tufts University Physics Colloquium, March 2002

Gravitational Optics with Galaxies

University of Wisconsin at Madison Astronomy Colloquium, February 2002

Measuring Halo Shapes with Weak Lensing

Brown University Theoretical Physics Seminar, February 2001

Constraining the Shapes of the Dark Halos of Field Galaxies
Boston University Astrophysics Seminar, January 2001

Weak Lensing: Mapping Dark Matter on Scales of 10 kpc
Yale University Astrophysics Seminar, October 2000

Galaxy-Galaxy Lensing
University of Florida (Gainesville) Astrophysics Colloquium, February 2000

Weak Lensing by Numerical Clusters
California Institute of Technology Astrophysics Colloquium, January 2000

Weak Lensing by Numerical Clusters
Massachusetts Institute of Technology Astrophysics Colloquium, August 1999

Highlights of the 1999 Gravitational Lensing Conference
Harvard-Smithsonian Center for Astrophysics, High Energy Astrophysics Division Journal Club,
August 1999

Weighing Galaxy Halos via Weak Gravitational Lensing
Boston University Astrophysics Colloquium, November 1998

Galaxy-Galaxy Lensing
University of Durham (United Kingdom) Astrophysics Theory Seminar, November 1997

Weak Gravitational Lensing by Galaxies
Fermi National Accelerator Laboratory Astrophysics Seminar, June 1996

Weak Gravitational Lensing by Galaxies
Massachusetts Institute of Technology Astrophysics Colloquium, May 1996

Weak Gravitational Lensing by Galaxies
Harvard-Smithsonian Center for Astrophysics Theory Seminar, April 1996

Measuring Galaxy Masses using Weak Gravitational Lensing
University of California (Berkeley) Astrophysics Seminar, May 1995

Weak Gravitational Lensing by Galaxies
Boston University Astrophysics Colloquium, December 1994

Measuring Galaxy Masses using Weak Gravitational Lensing
Los Alamos National Laboratory High Energy Theory Seminar, December 1994

Cold Dark Matter Confronts Galaxy Clustering
University of Maryland at College Park Astrophysics Colloquium, March 1994

Cold Dark Matter Confronts Galaxy Clustering

University of Florida (Gainesville) Astrophysics Colloquium, March 1994

Cold Dark Matter Confronts Galaxy Clustering

Los Alamos National Laboratory Astrophysics Seminar, March 1994

Cold Dark Matter Confronts Galaxy Clustering

Boston University Astrophysics Colloquium, February 1994

The Redshift-Space Power Spectrum of Galaxies

California Institute of Technology Astrophysics Seminar, December 1993

The Clustering of Galaxies in a Cold Dark Matter Universe

The Ohio State University Astrophysics Colloquium, May 1992

Invited Conference Reviews:

Galaxy-Galaxy Lensing I: History, Theoretical Expectations & Simulations

INAF/COSMOCT Autumn School on Gravitational Lensing, Catania, Italy, October 2006

Galaxy-Galaxy Lensing II: Observational Constraints on Dark Matter Halos

INAF/COSMOCT Autumn School on Gravitational Lensing, Catania, Italy, October 2006

Constraining the Dark Mass Distribution on 100 kpc Scales

Santa Fe Summer Cosmology Workshop, Santa Fe, NM, July 2002

The Status of Galaxy-Galaxy Lensing

IAU Symposium 201, "New Cosmological Data and the Value of the Fundamental Parameters", Manchester, United Kingdom, August 2000

Probing Dark Matter Halos with Weak Lensing

2nd Princeton - PUC Joint Workshop on Astrophysics, "Dark Matter and Gravitational Lensing", San Pedro de Atacama, Chile, July 2000

Galaxy-Galaxy Lensing

"Gravitational Lensing: Recent Progress & Future Goals", Boston University, July 1999

Weak Gravitational Lensing in the Universe

1st Moroccan International Astronomy School, Casablanca, Morocco, December 1996

Testing Theories of Structure Formation

Astronomical Society of the Pacific Annual Meeting, University of Maryland (College Park), June 1995

Invited Conference Talks:

Flattening of Field Galaxy Halos

XXIst Institut d'Astrophysique de Paris meeting, "Mass Profiles and Shapes of Cosmological Structures", Paris, France, July 2005

The Effect of Multiple Weak Deflections on Galaxy-Galaxy Lensing

IAU Symposium 225, "The Impact of Gravitational Lensing on Cosmology", Lausanne, Switzerland, July 2004

Halos of Field Galaxies: Dynamics versus Weak Lensing

1st Mitchell Symposium on Observational Cosmology, Texas A & M University, April, 2004

Contributed Conference Talks:

The Troubles with Anisotropic Galaxy-Galaxy Lensing

XXVII Texas Symposium on Relativistic Astrophysics, Dallas, TX, December 2013

Orientations of Bright Galaxies within their Dark Matter Halos

"Probes of Dark Matter on Galaxy Scales", Monterey, CA, July 2013

The Importance of Simulations for the Interpretation of Galaxy-Galaxy Lensing Observations

SnowPAC 2012, Salt Lake City, UT, March 2012

Orientations of Galaxies within their Dark Matter Halos

Meeting of the American Astronomical Society, Seattle, WA, January 2011

The Troubles with Anisotropic Galaxy-Galaxy Lensing

"Ten Years of Cosmic Shear", Edinburgh University, Edinburgh, UK, July 2010

Satellite Galaxies as Tracers of Dark Matter Halos

"Unveiling the Mass: Extracting and Interpreting Galaxy Masses", Queen's University, Kingston, ON, Canada, June 2009

Using Weak Lensing to Constrain the Shapes of Galaxy Halos

"A New Era in Cosmology", University of Durham, UK, September 2001

Weak Lensing by Flattened Halos

"The Shapes of Galaxies and their Halos", Yale University, New Haven, CT May 2001

Strong Clustering of Faint Galaxies

"Cosmology from COBE to Galaxy Formation", Nordic Symposium, NORDITA, Copenhagen, Denmark, December 1997

Galaxy-Galaxy Lensing

Cluster and Weak Gravitational Lensing Workshop, Ringberg Castle, Germany, January 1997

The Redshift-Space Power Spectrum of Galaxies

MSSSO Workshop on Peculiar Velocities in the Universe, Heron Island, Australia, July 1995

Weak Lensing by Individual Galaxies

IAU Symposium 173, "Astrophysical Applications of Gravitational Lensing", Melbourne, Australia, June 1995

Galaxy Halo Parameters from Weak Gravitational Lensing

Meeting of the Astronomical Society of the Pacific, University of Maryland (College Park), June 1995

A Study of the Properties of Dark Galaxy Halos formed in a CDM Universe using N-body Computer Simulations (Dissertation Talk)

Meeting of the American Astronomical Society, Atlanta, GA, January 1992

Poster Papers:

Effects of Multiple Weak Deflections on the Galaxy-Galaxy Lensing Signal

Authors: T. G. Brainerd & K. Blumenthal

Meeting of the American Astronomical Society, Boston, MA June 2014

Multiple Deflections in Galaxy-Galaxy Lensing

Authors: K. Blumenthal & T. G. Brainerd

Meeting of the American Astronomical Society, National Harbor, MD, January 2014

Cosmic Magnification in the Sloan Digital Sky Survey

Authors: T. G. Brainerd, T. V. Wenger & I. Agustsson

“Probes of Dark Matter on Galaxy Scales”, Monterey, CA, July 2013

Cosmic Magnification in the Sloan Digital Sky Survey

Authors: T. G. Brainerd, T. V. Wenger & I. Agustsson

Meeting of the American Astronomical Society, Long Beach, CA, January 2013

A Preliminary Analysis of Cosmic Magnification of SDSS Galaxies

Authors: T. G. Brainerd & T. V. Wenger

Meeting of the American Astronomical Society, Boston, MA, May 2011

Satellite Galaxies as Probes of Dark Matter Halos

Authors: I. Agustsson & T. G. Brainerd

Meeting of the American Astronomical Society, Boston, MA, May 2011

Intrinsic Alignments of Galaxies

Authors: T. G. Brainerd, I. Agustsson, C. A. Madsen & J. A. Edmonds

“Ten Years of Cosmic Shear”, Edinburgh University, Edinburgh, UK, July 2010

Multiple Deflections in Galaxy-Galaxy Lensing: Observations

Authors: P. J. Howell & T. G. Brainerd

“Ten Years of Cosmic Shear”, Edinburgh University, Edinburgh, UK, July 2010

Large-Scale Intrinsic Alignments of Galaxies

Authors: T. G. Brainerd, I. Agustsson, C. A. Madsen & J. A. Edmonds

Meeting of the American Astronomical Society, Washington, DC, January 2010

Properties of Dark Matter Halos from Galaxy-Galaxy Weak Lensing and the Effect of Multiple Deflections

Authors: P. Howell & T. G. Brainerd

Meeting of the American Astronomical Society, Washington, DC, January 2010

Orientation of Late-Type Galaxies within their Dark Matter Halos

Authors: I. Agustsson & T. G. Brainerd

“Unveiling the Mass: Extracting and Interpreting Galaxy Masses”, Queen’s University, Kingston, ON, Canada, June 2009

Influence of Multiple Deflections on Weak Lensing Probes of Flattened Dark Matter Halos

Authors: P. J. Howell & T. G. Brainerd

“Unveiling the Mass: Extracting and Interpreting Galaxy Masses”, Queen’s University, Kingston, ON, Canada, June 2009

Can the Velocity Dispersion Profiles of Satellite Galaxies Distinguish Between NFW and Isothermal Halos?

Author: T. G. Brainerd

Meeting of the American Astronomical Society, Long Beach, CA, January 2009

Orientation of Late-Type Galaxies within their Dark Matter Halos

Authors: I. Agustsson & T. G. Brainerd

Meeting of the American Astronomical Society, Long Beach, CA, January 2009

Anisotropic Locations of Satellite Galaxies

Authors: I. Agustsson & T. G. Brainerd

Meeting of the American Astronomical Society, Austin, TX, January 2008

Mass-to-Light Ratios of 2dF Galaxies

Authors: T. G. Brainerd & M. A. Specian

“Dark Matter in Galaxies”, IAU Symposium 220, Sydney, Australia, July 2003

Multiple Deflections in the HDF-North

Author: T. G. Brainerd

“Maps of the Cosmos”, IAU Symposium 216, Sydney, Australia, July 2003

Detecting Flattened Halos with Weak Lensing

Authors: T. G. Brainerd & C. O. Wright

Hubble Science Legacy Workshop, University of Chicago, Chicago, IL, April 2002

Multiple Weak Lensing Events in the HDF-North

Author: T. G. Brainerd

“Infrared Astronomy from Antarctica”, Boston University, Boston, MA, March 2003

Constraining the Flattening of Field Galaxy Lenses

Authors: C. O. Wright & T. G. Brainerd

“Gravitational Lensing: Recent Progress & Future Goals”, Boston University, July 1999

Faint Galaxy Clustering in Quasar Fields

Authors: T. G. Brainerd, C. J. Law, J. Brauher, S. G. Djorgovski, & K. Banas

“The Hy-redshift Universe”, University of California (Berkeley), Berkeley, CA June 1999

Faint Galaxy Clustering in Quasar Fields

Authors: T. G. Brainerd, C. J. Law, J. Brauher, S. G. Djorgovski, & K. Banas

Meeting of the American Astronomical Society, Chicago, IL, June 1999

Weighing the Heaviest Objects in the Universe

Authors: C. O. Wright & T. G. Brainerd

"Pathways 1999", Boston University, April 1999

Gravitational Lensing by an NFW Density Profile

Authors: C. O. Wright & T. G. Brainerd

Graduate Student Science Day, Boston University, March 1999

Galaxy-Galaxy Lensing

Author: T. G. Brainerd

10th Annual National Academy of Sciences "Frontiers of Science" Symposium, Irvine, CA, November 1998

A Comparison of Simple Mass Estimators for Galaxy Clusters

Authors: T. G. Brainerd & C. M. Oaxaca

Meeting of the American Astronomical Society, San Diego, CA, June 1998

A Nearly Constant Clustering Amplitude for Faint Galaxies

Authors: T. G. Brainerd & I. Smail

Meeting of the American Astronomical Society, Washington, DC, January 1998

Weak Gravitational Lensing by Numerical Clusters

Authors: C. M. Oaxaca & T. G. Brainerd

Meeting of the American Astronomical Society, Washington, DC, January 1998

Weak Lensing by Galaxies

Authors: T. G. Brainerd, R. D. Blandford & I. Smail

1st Moroccan International Astronomy School, Casablanca, Morocco, December 1996

High-Resolution Rich Cluster Simulations

Authors: T. G. Brainerd, D. M. Goldberg & J. V. Villumsen

37th Herstmonceux Conference, Cambridge University, UK, July 1996

Gravitational Lensing in the Hubble Deep Field

Authors: D. W. Hogg, R. D. Blandford, T. Kundic & T. G. Brainerd

37th Herstmonceux Conference, Cambridge University, UK, July 1996

Weak Gravitational Lensing by Galaxies - Implications for Dark Matter Halos

Authors: T. G. Brainerd, R. D. Blandford & I. Smail

Meeting of the American Astronomical Society, Madison, WI, June 1996

Clustering of Galaxies in the Digitized Palomar Observatory Sky Survey: Preliminary Results

Authors: T. G. Brainerd, R. De Carvalho, & S. G. Djorgovski

Meeting of the American Astronomical Society, San Antonio, TX

Self-Consistent High-Resolution Simulations of Cluster Formation

Authors: D. M. Goldberg, T. G. Brainerd & J. V. Villumsen

Meeting of the American Astronomical Society, San Antonio, TX, January 1996

Angular Clustering of Galaxies to $z \sim 1$

Authors: T. G. Brainerd, I. R. Smail & J. R. Mould

Meeting of the American Astronomical Society, Tucson, AZ, January 1995

The Power Spectrum of Dark Matter Halos in a CDM Universe

Authors: T. G. Brainerd & J. V. Villumsen

5th Annual Astrophysics Conference in Maryland, University of Maryland (College Park), College Park, MD, October 1994

Initial Measurements of the Galaxy Angular Two-Point Correlation Function from the Digitized Palomar Observatory Sky Survey

Authors: T. G. Brainerd, N. Weir, S. Djorgovski, & U. Fayyad

Meeting of the American Astronomical Society, Washington, DC, January 1994

A High Resolution Numerical Simulation of the Formation of a Massive Dark Galaxy Halo

Authors: T. G. Brainerd & J. V. Villumsen

Meeting of the American Astronomical Society, Phoenix, AZ, January 1993

Linear Evolution of the Gravitational Potential: A New Approximation for the Nonlinear Evolution of Large-Scale Structure

Authors: T. G. Brainerd, R. J. Scherrer & J. V. Villumsen

Texas/PASCOS Meeting, University of California (Berkeley), Berkeley, CA, December 1992

The Spatial Correlation Properties of Galaxy Halos in a Cold Dark Matter Universe

Authors: T. G. Brainerd & J. V. Villumsen

"The Evolution of Galaxies and their Environment", Jackson Hole, WY, July 1992

A High-Resolution Numerical Simulation of the Formation of a Massive Dark Galaxy Halo

Authors: T. G. Brainerd & J. V. Villumsen

Meeting of the American Astronomical Society, Columbus, OH, June 1992

Tereasa G. Brainerd
Public Education/Outreach Talks

Participant, Expert Panel discussion on *Career Challenges for Women in Space Science*
“Plasma Processes in Space Physics” Graduate Summer School, Boston University, August 2012

Einstein's Relativity

<http://scienceforthepublic.org/cosmos/einsteins-relativity/>

Science for the Public, Cambridge Public Library, November 2010

Seeing the Un-seeable: Clues to the Orientations of Bright Galaxies within their Dark Matter Halos
PHOTON (BU chapter of the Society of Physics Students), Boston University, December 2009

Satellite Galaxies and CDM Halos

Meeting of the American Association of Physics Teachers, Boston University, March 2006

Hubble Space Telescope's Contributions to Cosmology

Two-way webinar for advanced high school science students in Buenos Aires, Argentina, organized by Drs. Pedro Saizar and Anibal Gattone, April 2005

Participant, Expert Panel discussion on *Einstein's Relativity*

Boston Museum of Science, March 2005

Cosmology with the Hubble Space Telescope

Boston University Astronomical Society, Boston, MA March 2001

HST: 10 Years of Spectacular Images from Space

Boston University Earth & Environmental Awareness House, Boston, MA, November 2000

The Night Sky

Moroccan-American School, Casablanca, Morocco, December 1996

The Universe of Galaxies

Boston University Space and Astronomy Day, Boston, MA, November 1996

The Role of N-body Simulations in Cosmology

“Universe '95”, University of Maryland at College Park, College Park, MD, June 1995

Participant, Expert Panel Discussion on *Dark Matter in the Universe*

“Universe '95”, University of Maryland at College Park, College Park, MD, June 1995

The Big Bang

San Diego Amateur Astronomy Association, San Diego, CA, November 1993

The Big Bang

Monrovia Rotary Society, Monrovia, CA, April 1993

Tereasa G. Brainerd

Publications

Edited Books:

D. Clemens, R. Shah, & T. Brainerd (eds.), *Milky Way Surveys: The Structure and Evolution of our Galaxy*, ASP Conference Series, vol. 317 (2004)

T. G. Brainerd & C. S. Kochanek (eds.), *Gravitational Lensing: Recent Progress and Future Goals*, ASP Conference Series, vol. 237 (2001)

J. Scott, C. Mansperger, T. Brainerd, & P. Saizar (eds.), *Sample Examination Questions for Introductory Astronomy Courses (2nd Edition)*, Bellwether Press (1988)

Authored Book Chapters:

T. G. Brainerd, "Constraints on Field Galaxy Halos from Weak Lensing and Satellite Dynamics", invited comprehensive review in *The New Cosmology*, AIP Conference Proceedings 743, eds. R. E. Allen, D. V. Nanopoulos & C. N. Pope, New York: American Institute of Physics, pp. 129-156 (2004)

T. G. Brainerd & R. D. Blandford, "Gravitational Optics Studies of Dark Matter Halos", invited comprehensive review in *Gravitational Lensing: an Astrophysical Tool*, Lecture Notes in Physics vol. 608, eds. F. Courbin & D. Minniti, pp. 96-123 (2002)

Refereed Journal Articles:

I. Agustsson & T. G. Brainerd, "The Spatial Distribution of Satellite Galaxies", in preparation (expected submission date: Sept. 12, 2014)

P. Howell & T. G. Brainerd, "Galaxy-Galaxy Lensing by Non-Spherical Haloes II: Observations", in preparation (expected submission date: Oct. 1, 2014)

I. Agustsson & T. G. Brainerd, "Locations of Satellite Galaxies in the Two-Degree Field Galaxy Redshift Survey", *ISRN Astronomy & Astrophysics*, doi:10.5402/2011/958973 (2011)

T. G. Brainerd, "How are Bright Galaxies Embedded within their Dark Matter Halos?", *Astronomical Review*, 6.8, 43 (2011)

P. J. Howell & T. G. Brainerd, "Galaxy-Galaxy Lensing by Non-Spherical Haloes I: Theoretical Considerations", *MNRAS*, 407, 91 (2010)

T. G. Brainerd, "Multiple Weak Deflections in Galaxy-Galaxy Lensing", *ApJ*, 713, 603 (2010)

I. Agustsson & T. G. Brainerd, "Anisotropic Locations of Satellite Galaxies: Clues to the Orientations of Galaxies within their Dark Matter Halos", *ApJ*, 709, 1321 (2010)

I. Agustsson & T. G. Brainerd, "The Locations of Satellite Galaxies in a Λ CDM Universe", *ApJ*, 650, 550 (2006)

I. Agustsson & T. G. Brainerd, "The Orientation of Satellite Galaxies: Evidence of Elongation in the Direction of the Host", *ApJ*, 644, L25 (2006)

- T. G. Brainerd, "Anisotropic Distribution of SDSS Satellite Galaxies: Planar (not Polar) Alignment", *ApJ*, 628, L101 (2005)
- T. G. Brainerd & M. A. Specian, "Mass-to-Light Ratios of 2dF Galaxies", *ApJ*, 593, L7 (2003)
- C. O. Wright & T. G. Brainerd, "Gravitational Lensing by NFW Halos", *ApJ*, 534, 34 (2000)
- T. G. Brainerd, C. O. Wright, D. M. Goldberg, & J. V. Villumsen, "A Comparison of Simple Mass Estimators for Galaxy Clusters", *ApJ*, 524, 9 (1999)
- T. G. Brainerd, D. M. Goldberg & J. V. Villumsen, "High-Resolution Simulations of Cluster Formation", *ApJ*, 502, 505 (1998)
- T. G. Brainerd & I. Smail, "A Constant Clustering Amplitude for Faint Galaxies?", *ApJ*, 494, L137 (1998)
- T. G. Brainerd, R. D. Blandford, & I. Smail, "Weak Gravitational Lensing by Galaxies", *ApJ*, 466, 623 (1996)
- T. G. Brainerd, B. C. Bromley, M. S. Warren, & W. H. Zurek, "Velocity Dispersion and the Redshift Space Power Spectrum", *ApJ*, 464, L103 (1996)
- T. G. Brainerd, I. Smail, & J. R. Mould, "Evolution in the Clustering of Galaxies to $r=26$ ", *MNRAS*, 275, 781 (1995)
- T. G. Brainerd & J. V. Villumsen, "On the Peculiar Velocity Field in a CDM Universe", *ApJ*, 436, 528 (1994)
- ³J. R. Mould, R. D. Blandford, J. V. Villumsen, T. G. Brainerd, I. Smail, T. A. Small, & W. Kells "A Search for Weak Distortion of Distant Galaxy Images by Large-Scale Structure", *MNRAS*, 271, 31 (1994)
- T. G. Brainerd & J. V. Villumsen, "On the Evolution of Clustering and the Biased Galaxy Formation Scenario", *ApJ*, 431, 477 (1994)
- T. G. Brainerd & J. V. Villumsen, "The Power Spectra of Dark Halos in a CDM Universe", *ApJ*, 425, 403 (1994)
- T. G. Brainerd, R. J. Scherrer, & J. V. Villumsen, "Linear Evolution of the Gravitational Potential: A New Approximation for the Nonlinear Evolution of Large-Scale Structure", *ApJ*, 418, 570 (1993)
- T. G. Brainerd & J. V. Villumsen, "The Redshift Space Power Spectrum of Galaxies in a CDM Universe", *ApJ*, 415, L67 (1993)
- T. G. Brainerd & J. V. Villumsen, "The Spatial Correlation Properties of Galaxy Halos in a Cold Dark Matter Universe", *ApJ*, 400, 398 (1992)
- T. G. Brainerd & J. V. Villumsen, "The Mass Function of Dark Galaxy Halos in a Cold Dark Matter Universe", *ApJ*, 394, 409 (1992)

R. D. Blandford, A. B. Saust, T. G. Brainerd, & J. V. Villumsen, "The Distortion of Distant Galaxy Images by Large-Scale Structure", MNRAS, 251, 600 (1991)

³The order of the first 5 authors' names on the Mould et al. (1994) paper was determined by having a disinterested party (Dr. Chung-Pei Ma) draw the names at random.

Conference Proceedings, Invited Papers:

T. G. Brainerd, "The Effects of Multiple Weak Deflections in Galaxy-Galaxy Lensing", in *The Impact of Gravitational Lensing on Cosmology*, proceedings of IAU Symposium 225, eds. Y. Mellier & G. Meylan, 255 (2005)

T. G. Brainerd, "Galaxy-Galaxy Lensing: Status & Applications", in *New Cosmological Data and the Values of the Fundamental Parameters*, proceedings of IAU Symposium 201, ASP Conference Series 201, eds. A. Lasenby & A. Wilkinson, 282 (2005)

T. G. Brainerd, "Galaxy-Galaxy Lensing", in *Gravitational Lensing: Recent Progress and Future Goals*, ASP Conference Series, vol. 237, eds. T. G. Brainerd & C. S. Kochanek, 379 (2001)

T. G. Brainerd, "Weak Gravitational Lensing in the Universe", in *From Quantum Fluctuations to Cosmological Structures*, ASP Conference Series, vol. 126, eds. D. Valls-Gabaud, M. A. Hendry, P. Molaro, & K. Chamcham, 479 (1997)

T. G. Brainerd, B. C. Bromley, M. S. Warren, & W. H. Zurek, "Testing Theories of Structure Formation", in *Clusters, Lensing & the Future of the Universe*, ASP Conference Series, vol. 88, eds. V. Trimble & A. Reisenegger, 47 (1996)

Conference Proceedings, Contributed Papers:

T. G. Brainerd & M. A. Specian, "Mass-to-Light Ratios of Early- and Late-Type Galaxies", in *Dark Matter in Galaxies*, proceedings of IAU Symposium 220, eds. S. D. Ryder, D. J. Pisano, M. A. Walker, & K. C. Freeman (ASP S-220), 145 (2004)

T. G. Brainerd, "Multiple Weak Lensing Deflections in the HDF (North)", in *Hubble's Science Legacy: Future Optical-UV Astronomy from Space*, ASP Conference Series, vol. 291, eds. K. R. Sembach, J. C. Blades, G. D. Illingworth, & R. C. Kennicutt, 347 (2003)

T. G. Brainerd & C. O. Wright, "Constraining Galaxy Halo Shapes with Weak Lensing", in *A New Era in Cosmology*, ASP Conference Series, vol. 283, eds. N. Metcalfe & T. Shanks, 177 (2003)

T. G. Brainerd & C. O. Wright, "Detecting Flattened Halos with Weak Lensing", in *Yale Cosmology Workshop: The Shapes of Galaxies and their Halos* (World Scientific), ed. P. Natarajan, 93 (2002)

C. O. Wright & T. G. Brainerd, "Constraining the Halo Flattening of Field Galaxy Lenses", in *Gravitational Lensing: Recent Progress and Future Goals*, ASP Conference Series, vol. 237, eds. T. G. Brainerd & C. S. Kochanek, 399 (2001)

T. G. Brainerd, C. J. Law, J. Brauher, S. G. Djorgovski, & K. Banas, “The Clustering of Faint Galaxies on Small Angular Scales”, in *The Hy-redshift Universe*, ASP Conference Series, vol. 193, eds. A. Bunker & W. van Breughel, 411 (2000)

T. G. Brainerd, D. M. Goldberg & J. V. Villumsen, “High-Resolution Rich Cluster Simulations”, in *HST and the High-Redshift Universe*, proceedings of the 37th Herstmonceux Conference (World Scientific), eds. N. Tanvir, A. Aragon-Salamanca, & J. Wall, 221 (1997)

D. W. Hogg, R. D. Blandford, C. D. Fassnacht, T. Kundic, & T. G. Brainerd, “Gravitational Lensing in the Hubble Deep Field”, in *HST and the High-Redshift Universe*, proceedings of the 37th Herstmonceux Conference (World Scientific), eds. N. Tanvir, A. Aragon-Salamanca, & J. Wall, 267 (1997)

B. C. Bromley, T. G. Brainerd, M. S. Warren, W. H. Zurek, & P. J. Quinn, “On Cluster Cores and Power Spectra”, in the proceedings of the XXXth Rencontres de Moriond (Editions Frontieres), eds. S. Maurogordato, C. Balkowski, C. Tao, & J. Tran Thanh Van, 195 (1997)

B. C. Bromley, T. G. Brainerd, M. S. Warren, & W. H. Zurek, “Cosmic Structure on Small Scales: Results on Cluster Cores and Redshift-Space Power Spectra”, in *Mapping, Measuring, and Modeling the Universe*, ASP Conference Series, vol. 94, eds. P. Coles, V. Martinez, & M.-J. Pons-Borderia, 107 (1996)

T. G. Brainerd, R. D. Blandford, & I. Smail, “Weak Lensing by Individual Galaxies”, in *Astrophysical Applications of Gravitational Lensing*, proceedings of IAU Symposium 173, eds. C. Kochanek & J. Hewitt, 183 (1996)

T. G. Brainerd, R. D. Blandford, & I. Smail, “Galaxy Halo Parameters from Weak Gravitational Lensing”, in *Clusters, Lensing & the Future of the Universe*, ASP Conference Series, vol. 88, eds. V. Trimble & A. Reisenegger, 225 (1996)

T. G. Brainerd & J. V. Villumsen, “The Power Spectrum of Dark Matter Halos in a CDM Universe”, in *Dark Matter*, AIP Conference Series, vol. 336, eds. S. S. Holt & C. L. Bennet, 407 (1995)

R. D. Blandford, T. G. Brainerd, J. R. Mould, T. A. Small, & J. V. Villumsen, “The Palomar GLOB Survey”, in *Sky Surveys: Protostars to Protogalaxies*, ASP Conference Series, vol. 43, ed. B. T. Soifer, 177 (1993)

T. G. Brainerd & J. V. Villumsen, “The Spatial Correlation Properties of Galaxy Halos in a Cold Dark Matter Universe”, in *The Evolution of Galaxies and their Environment* (NASA conference publication 3190), eds. D. Hollenbach, J. M. Shull, & H. A. Thronson, 62 (1993)

R. D. Blandford, A. B. Saust, T. G. Brainerd, & J. V. Villumsen, “The Distortion of Distant Galaxy Images by Large-Scale Structure”, in *After the First Three Minutes*, AIP Conference Proceedings, vol. 222, eds. S. S. Holt, C. L. Bennet, & V. Trimble, 455 (1991)

Published Abstracts:

- T. G. Brainerd & K. Blumenthal “Effects of Multiple Weak Deflections on the Galaxy-Galaxy Lensing Signal”, AAS Meeting #224, #318.12 (2014)
- K. Blumenthal & T. G. Brainerd, “Multiple Deflections in Galaxy-Galaxy Lensing”, AAS Meeting #223, #245.02 (2014)
- T. G. Brainerd, “Orientations of Bright Galaxies within their Dark Matter Halos”, AAS Topical Conference Series Vol. 1, #7, #201.01, BAAS, vol. 45 (2013)
- T. G. Brainerd, T. V. Wenger & I. Agustsson, “Cosmic Magnification in the Sloan Digital Sky Survey”, AAS Topical Conference Series Vol. 1, #7, #303.06, BAAS, vol. 45 (2013)
- T. G. Brainerd, T. V. Wenger & I. Agustsson, “Cosmic Magnification in the Sloan Digital Sky Survey”, AAS Meeting #221, #152.05, BAAS, vol. 45 (2013)
- T. G. Brainerd & T. V. Wenger, “A Preliminary Analysis of Cosmic Magnification of SDSS Galaxies”, AAS Meeting #218, #235.02, BAAS, vol. 43 (2011)
- I. Agustsson & T. G. Brainerd, “Satellites as Probes of Dark Matter Halos”, AAS Meeting #218, #234.01, BAAS, vol. 43 (2011)
- T. G. Brainerd & I. Agustsson, “Orientations of Galaxies within their Dark Matter Halos”, AAS Meeting #217, #403.01, BAAS, vol. 43 (2011)
- T. G. Brainerd, I. Agustsson, C. A. Madsen, & J. A. Edmonds, “Large-Scale Intrinsic Alignments of Galaxies”, BAAS, vol. 41, p. 234 (2010)
- P. Howell & T. G. Brainerd, “Properties of Dark Matter Halos from Galaxy-Galaxy Weak Lensing and Effects of Multiple Deflections”, BAAS, vol. 41, p. 232 (2010)
- T. G. Brainerd, “Can the Velocity Dispersion Profiles of Satellite Galaxies Distinguish Between NFW and Isothermal Halos?”, BAAS, vol. 41, p. 446 (2009)
- I. Agustsson & T. G. Brainerd, “Orientation of Late-type Galaxies within their Dark Matter Halos”, BAAS, vol. 41, p. 231 (2009)
- I. Agustsson & T. G. Brainerd, “Anisotropic Locations of Satellite Galaxies”, BAAS, vol. 39, p. 741 (2007)
- C. O. Wright & T. G. Brainerd, “Constraining Galaxy Halo Shapes with Weak Lensing”, BAAS, vol. 32, p. 1577 (2000)
- T. G. Brainerd, C. J. Law, J. Brauher, S. G. Djorgovski, & K. Banas, “The Angular Clustering of Faint Galaxies in Quasar Fields”, BAAS, vol. 31, p. 982 (1999)
- T. G. Brainerd & C. M. Oaxaca, “A Comparison of Simple Mass Estimators for Galaxy Clusters”, BAAS, vol. 30, p. 873 (1998)
- R. D. Blandford, J. Cohen, T. Kundic, T. Brainerd, & D. Hogg, “Gravitational Lensing in the Hubble Deep Field”, BAAS, vol. 30, p. 825 (1998)

- T. G. Brainerd & I. Smail, "A Nearly-Constant Clustering Amplitude for Faint Galaxies", BAAS, vol. 29, p. 1355 (1998)
- C. M. Oaxaca & T. G. Brainerd, "Weak Gravitational Lensing by Numerical Clusters", BAAS, vol. 29, p. 1347 (1998)
- T. G. Brainerd, R. D. Blandford, & I. Smail, "Weak Gravitational Lensing by Galaxies: Implications for Dark Matter Halos", BAAS, vol. 28, p. 843 (1996)
- T. G. Brainerd, R. De Carvalho, & S. G. Djorgovski, "Clustering of Galaxies in the Digitized Palomar Observatory Sky Survey: Preliminary Results", BAAS, vol. 27, p. 1364 (1995)
- D. M. Goldberg, T. G. Brainerd, & J. V. Villumsen, "Self-Consistent High Resolution Simulations of Cluster Formation", BAAS, vol. 27, p. 1362 (1995)
- T. G. Brainerd, I. R. Smail, & J. R. Mould, "Angular Clustering of Galaxies to $z \sim 1$ ", BAAS, vol. 26, p. 1512 (1994)
- T. G. Brainerd, N. Weir, S. Djorgovski, & U. Fayyad, "Initial Measurements of the Galaxy Angular Two-Point Correlation Function from the Digitized Palomar Observatory Sky Survey", BAAS, vol. 25, p. 1400 (1993)
- T. G. Brainerd & J. V. Villumsen, "A High Resolution Numerical Simulation of the Formation of a Massive Dark Galaxy Halo", BAAS, vol. 24, p. 1248 (1992)
- T. G. Brainerd & J. V. Villumsen, "The Effect of Halo Mass on the Spatial Correlation Properties of Dark Halos in a CDM Universe", BAAS, vol. 24, p. 811 (1992)
- T. G. Brainerd, "A Study of the Properties of Dark Galaxy Halos formed in a CDM Universe using N-body Computer Simulations", BAAS, vol. 23, p. 1398 (1991)