

**Saskia Mordijck**

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**Professional Experience**

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<b>Assistant Professor</b> Department of Applied Science The College of William & Mary	2016-Present
<b>Research Assistant Professor</b> Department of Computer Science and Department of Physics and the Department of Applied Science The College of William & Mary	2011-Present
<b>Graduate Research Assistant</b> Center for Energy Research, UCSD Supervisor: Dr. R.A. Moyer	2007 - 2010

**Education**

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<b>University of California San Diego (UCSD)</b> , La Jolla, USA PhD in Engineering Physics ( Engineering Science) (Plasma physics)	January 2011
<b>University of California San Diego (UCSD)</b> , La Jolla, USA MS in Mechanical Engineering: Applied Physics	Spring 2010
<b>Katholieke Universiteit Leuven (K.U.Leuven)</b> , Leuven, Belgium Burgerlijk Ingenieur Werktuigkunde, (Master in Mechanical Engineering).	July 2006

**Honors, Awards and Leadership**

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**Best paper**

Awarded the “ Physics of Plasmas Editors Choice of 2012 best article”	2013
Two papers are being recognized as “Highlights of 2014” by Nuclear Fusion	2015

**Awards**

WISE travel award in 2013 awarded to perform experiments on DIII-D	2013
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**Leadership**

Leader of the Joint Research Target (JRT) for 2019 for DOE-FES	2017 - present
Program chair for MFE theory for the APS-DPP 2016 meeting	2016
Leader of the Topical group on Confinement and Transport	2016 - present
Leader of international joint experiment through the ITPA (TC-27)	2014 - present
Deputy leader of the Topical group on Confinement and Transport	2014 - 2016

## Current projects

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- Investigating the effects of Resonant Magnetic Perturbations on edge plasmas to better understand the underlying magnetic structure. Study the effect of these 3D structures in tokamaks and stellarators upon changes in turbulent transport.
- Particle transport validation using perturbative gas puff modulations as well as gyro-kinetic simulations; Investigating how different plasma conditions affect particle transport (i.e. Role of the rotation profile, momentum and impurity transport, as well as changes in turbulence)(with graduate student R. Reksoatmodjo) [DOE theory award, GA subcontract].
- Role of plasma edge physics on global confinement; using and developing plasma edge simulations to optimize plasma confinement (with undergraduate student P. Kress and Jerry Hughes, MIT) [GA subcontract].
- Studying neutral fueling versus the inward pinch at the plasma edge as leader of a joint experiment of the confinement and transport ITPA (TC-27) on JET, C-Mod and DIII-D (with undergraduate student Peter Kress from W&M, Tuomas Tala, Antti Salmi from VTT and Jerry Hughes from MIT) [GA subcontract].

## Teaching Experience

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### **Mathematical and Computational Methods I (APSC607)** Fall 2017

Introductionary mandatory graduate course in mathematical and computational methods. Topics include applied and numerical mathematical techniques necessary for a variety of topics relevant to the research interests of incoming graduate students.

### **Plasma Physics and Fusion Science (APSC490/690)** Fall, Spring 2017

Introduction to plasma physics and fusion science for undergraduate and graduate students who are interested in related research projects. Paper reading and textbook lecturing to give the necessary background.

### **Plasma Physics and Fusion Science (PHYS452)** Fall, Spring 2017

Advice a senior student on their thesis project.

### **Fluid Mechanics (APSC302)** Spring 2017

Introductionary undergraduate course in fluid mechanics. Topics include, kinematics, conservation laws, vorticity, dimensionless analysis and selected topics depending on general interest.

### **Advanced Topics in Plasma Turbulence & Transport** Fall 2016

Serie of lectures given at PKU (Beijing, China) on turbulence, transport and confinement in plasmas.

### **Plasma Physics (783)** Fall 2013

Introductionary graduate course on Plasma Physics. Topics include, single particle motion, MHD, waves, instabilities, kinetic theory and quasi-linear theory (limit 10 students).

**General Physics (102)**

Spring 2013

Develop and understanding of fundamental concepts of physics. Emphasis is placed upon Newtonian mechanics, thermodynamics, electricity and magnetism and modern physics (limit 35 students).

**Plasma Physics**

Fall 2011

Reading Course for graduate students  
Weekly meeting to discuss different topic in plasma physics based on basic textbooks and seminal/review papers

**Emerging 21st Century Energy Systems**

Winter 2007

Teaching of renewable energy systems and world energy needs  
Tasks: Exercises , homeworks, midterm questions, grading of midterm, final and project (approx 40 students).

**Emerging 21st Century Energy Systems**

February 2007

Replaced Prof. Dr. George Tynan for a single lesson.

**Student Advising**

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**Ph.D. Students**

Ryan Chaban Ph.D student 2017-ongoing

Richard Reksoatmodjo Ph.D student 2017-ongoing

Ph.D. Xin Wang graduated 2016.

Committee member for Victor Trujillo and Spencer Kim qualifier Applied Science Ph.D. student at W&M.

Committee member for Christopher Flint (Physics Ph.D. defense November 2017)

Committee member for Elizabeth Skinner qualifier Applied Science Ph.D. student at W&M.

Committee member William Roach (Applied Science Ph.D. defense August 2013).

Committee member Eric Dieckman (Applied Science Ph.D. defense October 2013).

**Undergraduate Students**

Advising Vincent Cordrey on a research project in plasma physics (2017 -)

Advising Peter Kress on a research project in plasma physics (2017 -)

Advising Austin Kalasky on a research project in plasma physics (2017)

Advising Isabelle Lee on a research project in plasma physics (2012-2014)

Advising Bret Bronner on a research project in plasma physics (spring 2013 at W&M)

## Service

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### Department and Institute

Hiring committee for lecture position on fluid mechanics	2017
Hiring committee for NTE data science position	2017
Committee for Sanderson undergraduate mentoring award	2017
Judging panel for the 2017 Graduate Research Symposium	2017
Space committee Applied Science	2016-present
Admissions and Recruiting committee Applied Science	2016-present
Web presence committee Computer Science department	2012-2016
Photographer for Computer Science	2012-2016

### Community-wide

#### APS-DPP

Member at large of the APS-DPP executive committee	2016-2019
Member of the APS-DPP committee on education and outreach	2014-2016
Member of the APS-DPP committee on women in plasma physics	2015- present
Program chair for MFE theory for the APS-DPP 2016 meeting	2016

#### ITPA

ITPA pedestal group expert	2011 - present
ITPA confinement group expert	2012 - 2015
ITPA confinement group member (1 of 7 US representatives)	2016 - present
Leader joint experiment TC-27	2014 - present

#### USBPO

Deputy leader of the Topical group on Confinement and Transport	2014 - 2016
Leader of the Topical group on Confinement and Transport	2016 - present
Editor for the monthly USBPO newsletter	Aug 2015 - present

#### Edge Coordinating Committee

Member of the Edge Coordinating Committee	2016 - 2019
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#### U.S. Magnetic Fusion Research Strategic Directions

Member of the Committee	2017- 2018
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#### Reviewing

Journal of Nuclear Materials (PSI)	2008, 2010
Nuclear Fusion	2009 - present
Plasma Physics and Controlled Fusion	2009 - present
Journal of Plasma Physics	2014 - present
Physical Review Letters	2016 - present
Nuclear Materials and Energy	2016 - present
National and International grant agencies	2012 - present
Member for FWO (Fonds Wetenschappelijk Onderzoek, Belgium) - Expertpanel W&T7: Energie, Electrotechniek, Elektronica en Werktuigkunde	2016-2019

**SULI program in plasma physics**

Lecture at the summer school for the SULI program at PPPL 2016-2017

**Expanding your Horizons**

Organize and participate in a workshop introducing middle school girls to what a plasma is through hands-on experiences. 2007

**Outreach**

Interview for W&M Alumni Magazine Fall 2012

Video and article for W&M Fall 2013

**Grants**

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**Awarded:**

Validation of particle transport modeling capabilities DOE PI \$ 280K 05/01/2012-15

Development of long-pulse heating and current drive actuators and operational techniques compatible with a high-Z divertor and first wall DOE PI \$ 390k 08/15/2013-16

Wise travel grant to lead an experiment on DIII-D investigating particle and momentum transport W&M PI \$ 1000 Summer 2013

Validation of particle transport modeling capabilities DOE PI \$ 85K 05/01/2015-16

Validation of particle transport modeling capabilities (supplement) DOE PI \$ 62K 05/01/2015-16

Development of long-pulse heating and current drive actuators and operational techniques compatible with a high-Z divertor and first wall (supplement) DOE PI \$ 55K 05/01/2015-16

The study of transport in burning plasma conditions GA PI \$ 100K 12/1/2015-16

Validation of Edge transport in tokamaks DOE PI \$ 270K 05/01/2016-19

The study of transport in burning plasma conditions GA PI \$ 210K 12/1/2016-17

## Publications

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- **Books and Theses**

- [B1] **Saskia Mordijck** “Particle transport as a result of Resonant Magnetic Perturbations” Ph.D. thesis, UCSD, January 7 2011, 114 pages.
- [B2] **Saskia Mordijck** “Effect of strong non-orthogonal wall structures on 2D fusion edge plasmas” Master thesis, K.U.Leuven, June 2 2006, 85 pages.

- **Journal Papers**

- [J1] X. Wang, **S. Mordijck**, E.J. Doyle, L. Zeng, G.M. Staebler, O. Meneghini, S.P. Smith “Role of turbulence regime on determining the local density gradient” *Nuclear Fusion*, **In Press**.
- [J2] R.A. Moyer, C. Paz-Soldan, R. Nazikian, D.M. Orlov, N.M. Ferraro, B.A. Grierson, M. Knölker, B.C. Lyons, G.R. McKee, T.H. Osborne, T.L. Rhodes, O. Meneghini, S. Smith, T.E. Evans, M.E. Fenstermacher, R.J. Groebner, J.M. Hanson, R.J. La Haye, T.C. Luce, **S. Mordijck**, W.M. Solomon, F. Turco, Z. Yan, L. Zeng and DIII-D Team “Validation of the model for ELM suppression with 3D magnetic fields using low torque ITER baseline scenario discharges in DIII-D” *Physics of Plasmas*, Volume 24, Article 102501, October 2017.
- [J3] X. Wang, **S. Mordijck**, E.J. Doyle, T.L. Rhodes, L. Zeng, G.R. McKee, M.E. Austin, O. Meneghini, G.M. Staebler and S.P. Smith “Understanding ECH pump-out in DIII-D H-mode plasmas” *Nuclear Fusion*, Volume 57, Article 116046, November 2017.
- [J4] W.M. Solomon for the DIII-D team “DIII-D research advancing the scientific basis for burning plasmas and fusion energy” *Nuclear Fusion*, Volume 57, Article 102018, October 2017.
- [J5] X. Litaudon, et al. **S. Mordijck** and JET contributors “Overview of JET results in support of ITER” *Nuclear Fusion*, Volume 57, Article 102001, October 2017.
- [J6] E. Meier, R.J. Goldston, E.G. Kaveeva, M.A. Makowski, **S. Mordijck**, V.A. Rozhansky, I. Yu Senichenkov and S.P. Voskoboynikov “Drifts, currents and power scrape-off width in SOLPS-ITER modeling of DIII-D” *Nuclear Materials and Energy*, ISSN 2352-1791, 2016.
- [J7] E. Meier, R.J. Goldston, E.G. Kaveeva, M.A. Makowski, **S. Mordijck**, V.A. Rozhansky, I. Yu Senichenkov and S.P. Voskoboynikov “Analysis of drift effects on the tokamak power scrape-off width using SOLPS-ITER” *Plasma Physics and Controlled Fusion*, Volume 58, Article 125012, December 2016.
- [J8] X. Wang, **S. Mordijck**, L. Zeng, L. Schmitz, T.L. Rhodes, E.J. Doyle, R. Groebner, O. Meneghini, G.M. Staebler and S.P. Smith “Turbulent particle transport as a function of toroidal rotation in DIII-D H-mode plasmas” *Plasma Physics and Controlled Fusion*, Volume 58, Article 045026, April 2016.
- [J9] **S. Mordijck**, T.L. Rhodes, L. Zeng, E.J. Doyle, L. Schmitz, C. Chrystal, E.J. Strait, R.A. Moyer “Effect of resonant magnetic perturbations on turbulence and transport in DIII-D L-mode plasmas” *Plasma Physics and Controlled Fusion*, Volume 58, Article 014003, January 2016.

- [J10] **S. Mordijck**, Xin Wang, E.J. Doyle, T.L. Rhodes, L. Schmitz, L. Zeng, G. Staebler, C.C. Petty, R.J. Groebner, W-H. Ko, B.A. Grierson, W.M. Solomon, T. Tala, A. Salmi, C. Chrystal, P.H. Diamond and G.R. McKee “Particle transport in low-collisionality H-mode plasmas on DIII-D” *Nuclear Fusion*, Volume 55, Article 113025, October 2015.
- [J11] **S. Mordijck**, R.A. Moyer, N.M. Ferraro, M.R. Wade, T.H. Osborne “The radial electric field as a measure for field penetration of resonant magnetic perturbations” *Nuclear Fusion*, Volume 54, Article 082003, August 2014.
- [J12] C. Chrystal, K.H. Burrell, B.A. Grierson, G.M. Staebler, W.M. Solomon, W.X. Wang, T.L. Rhodes, L. Schmitz, J.E. Kinsey, L.L. Lao, J.S. deGrassie, **S. Mordijck**, O. Meneghini “Testing neoclassical and turbulent effects on poloidal rotation in the core of DIII-D” *Physics of Plasmas*, Volume 21, Article 0072504, July 2014.
- [J13] O. Schmitz, T.E. Evans, M.E. Fenstermacher, M.J. Lanctot, **S. Mordijck**, R.A. Moyer, H. Reimerdes and the DIII-D Team “Formation of a three-dimensional plasma boundary after decay of the plasma response to resonant magnetic perturbation fields” *Nuclear Fusion*, Volume 54, Article 12001, January 2014.
- [J14] H. Meyer, et al. **S. Mordijck**, and the MAST and NBI teams “Overview of Physics Results from MAST towards ITER/DEMO and the MAST upgrade” *Nuclear Fusion*, Volume 53, Article 104008, October 2013.
- [J15] G.R. McKee, Z. Yan, C. Holland, R.J. Buttery, T.E. Evans, R.A. Moyer, **S. Mordijck**, R. Nazikian, T.L. Rhodes, O. Schmitz and M.R. Wade “Increase of turbulence and transport with resonant magnetic perturbations in ELM-suppressed plasmas on DIII-D” *Nuclear Fusion*, Volume 53, Article 113011, November 2013.
- [J16] J.D. Callen, A.J. Cole, C.C. Hegna, **S. Mordijck**, R.A. Moyer “RMP effects on pedestal structure and ELMs” *Nuclear Fusion*, Volume 52, Article 114016, November 2012.
- [J17] **S. Mordijck**, E.J. Doyle, G.R. McKee, R.A. Moyer, T.L. Rhodes, L. Zeng, M.E. Fenstermacher, K.W. Gentle, H. Reimerdes, O. Schmitz, W.M. Solomon, G.M. Staebler, G. Wang “Changes in particle transport as a result of resonant magnetic perturbations in DIII-D” *Physics of Plasmas*, Volume 19, Article 056503, May 2012.
- [J18] O. Schmitz, T.E. Evans, M.E. Fenstermacher, M. Lehnen, H. Stoschus, E.A. Unterberg, J.W. Coenen, H. Frerichs, M.W. Jakubowski, R. Laengner, C.L. Lasnier, **S. Mordijck**, R.A. Moyer, T.H. Osborne, H. Reimerdes, D. Reiter, U. Samm, B. Unterberg and the DIII-D and TEXTOR teams “Resonant features of energy and particle transport during application of resonant magnetic perturbation fields at TEXTOR and DIII-D” *Nuclear Fusion*, Volume 52, Article 043005, April 2012.
- [J19] **S. Mordijck**, R.A. Moyer, G.R. McKee “Changes in density fluctuations as a result of resonant magnetic perturbations correlate with the density inverse scale length” *Physics of Plasmas*, Volume 19, Article 024504, February 2012.
- [J20] **S. Mordijck**, R.A. Moyer, A. Kirk, P. Tamain, D. Temple, G.R. McKee and E. Nardon “Comparison of resonant magnetic perturbation-induced particle transport changes in H-mode (DIII-D) and L-mode (MAST)” *Plasma Physics and Controlled Fusion*, Volume 53, Article 122001, November 2011.
- [J21] B. Lloyd, et al. **S. Mordijck**, and the MAST and NBI teams “Overview of Physics Results from MAST” *Nuclear Fusion*, Volume 51, Article 094013, September 2011.

- [J22] T.W. Petrie, T.E. Evans, N.H. Brooks, M.E. Fenstermacher, J.R. Ferron, C.T. Holcomb, B. Hudson, A.W. Hyatt, T.C. Luce, C.J. Lasnier, **S. Mordijck**, R.A. Moyer, T.H. Osborne, P.A. Politzer, M.E. Rensink, M.J. Schaffer, P.B. Snyder and J.G. Watkins "Results from radiating divertor experiments with RMP ELM suppression and mitigation" *Nuclear Fusion*, Volume 51, Article 073003, May 2011.
- [J23] A. Kirk, Y. Liu, E. Nardon, P. Tamain, P. Cahyna, I. Chapman, P. Denner, H. Meyer, **S. Mordijck**, D. Temple and the MAST team "Magnetic perturbation experiments on MAST L- and H-mode plasmas using internal coils" *Plasma Physics and Controlled Fusion*, Volume 53, Article 056011, April 2011.
- [J24] A. Kirk, E. Nardon, P. Tamain, P. Denner, H. Meyer, **S. Mordijck**, D. Temple and the MAST team "The effect of resonant magnetic perturbations on L and H-mode plasmas on MAST" *Journal of Nuclear Materials (Plasma Surface Interactions 2010)*, Volume 415, Pages 910-913, August 2011.
- [J25] M.W. Jakubowski, T.E. Evans, M.E. Fenstermacher, C.J. Lasnier, R.C. Wolf, L.R. Baylor, J.A. Boedo, K.H. Burrell, J.S. deGrassie, P. Gohil, **S. Mordijck**, R. Laengner, A.W. Leonard, R.A. Moyer, T.W. Petrie, C.C. Petty, R.I. Pinsker, T.L. Rhodes, J.G. Watkins "Toroidally resolved structure of divertor heat flux in RMP H-mode discharges on DIII-D" *Journal of Nuclear Materials (Plasma Surface Interactions 2010)*, Volume 415, Pages 901-905, August 2011.
- [J26] T.W. Petrie, T.E. Evans, M.E. Fenstermacher, **S. Mordijck**, N.H. Brooks, J.R. Ferron, B. Hudson, A.W. Hyatt, C.J. Lasnier, A.W. Leonard, T.C. Luce, R.A. Moyer, P.A. Politzer, M.J. Schaffer, P.B. Snyder, J.G. Watkins "First results examining the compatibility of RMP ELM suppression with the radiating divertor in DIII-D" *Journal of Nuclear Materials (Plasma Surface Interactions 2010)*, Volume 415, Pages 906-909, August 2011.
- [J27] M.W. Jakubowski, T.E. Evans, M.E. Fenstermacher, C.J. Lasnier, O. Schmitz, R.C. Wolf, L.R. Baylor, J.A. Boedo, K.H. Burrell, H. Frerichs, J.S. deGrassie, P. Gohil, **S. Mordijck**, R.A. Moyer, A.W. Leonard, D. Reiter, U. Samm, M.J. Schaffer, T.H. Osborne, E.A. Unterberg, J.G. Watkins "Influence of the resonant magnetic perturbation on the plasma boundary in DIII-D" *Contributions to plasma physics*, Volume 50, Pages 701-707, July 2010.
- [J28] **S. Mordijck**, L.W. Owen, R.A. Moyer "Increased particle transport due to resonant magnetic perturbations modeled with a vacuum field line tracing code and a 2D fluid code" *Nuclear Fusion*, Volume 50, Article 034006, February 2010.
- [J29] E.A. Unterberg, O. Schmitz, T.E. Evans, R. Maingi, N.H. Brooks, M.E. Fenstermacher, **S. Mordijck**, R.A. Moyer, D.M. Orlov "The effects of an open and closed divertor on particle exhaust during edge-localized mode suppression by resonant magnetic perturbations in DIII-D" *Nuclear Fusion*, Volume 50, Article 034011, February 2010.
- [J30] D.M. Orlov, R.A. Moyer, T.E. Evans, **S. Mordijck**, T.H. Osborne, M.E. Fenstermacher, P. Snyder, E.A. Unterberg "Numerical analysis of effects of normalized plasma pressure on RMP ELM suppression in DIII-D" *Nuclear Fusion*, Volume 50, Article 034010, February 2010.
- [J31] O. Schmitz, T.E. Evans, M.E. Fenstermacher, E.A. Unterberg, M.E. Austin, B.D. Bray, N.H. Brooks, H. Frerichs, M. Groth, M.W. Jakubowski, C.J. Lasnier, M. Lehnen, A.W. Leonard, **S. Mordijck**, R.A. Moyer, T.H. Osborne, D. Reiter, U. Samm, M.J.



Schaffer, B. Unterberg, W.P. West and the DIII-D and TEXTOR Research Team  
"Resonant pedestal pressure reduction induced by a thermal transport enhancement due to stochastic magnetic boundary layers in high temperature plasmas" *Physical Review Letters*, Volume 103, Article 165005, October 2009.

- [J32] M.W. Jakubowski, T.E. Evans, M.E. Fenstermacher, M. Groth, C.J. Lasnier, A.W. Leonard, O. Schmitz, J.G. Watkins, T. Eich, W. Fundamenski, R.A. Moyer, R.C. Wolf, L.B. Baylor, J.A. Boedo, K.H. Burrell, H. Frerichs, J.S. deGrassie, P. Gohil, I. Joseph, **S. Mordijck**, M. Lehnen, C.C. Petty, R.I. Pinsker, D. Reiter, T.L. Rhodes, U. Samm, M.J. Schaffer, P.B. Snyder, H. Stoschus, T. Osborne, B. Unterberg, E. Unterberg and W.P. West "Overview of the results on divertor heat loads in RMP controlled H-mode plasmas on DIII-D" *Nuclear Fusion*, Volume 49, Article 095013, September 2009.
- [J33] E.A. Unterberg, T.E. Evans, R. Maingi, N.H. Brooks, M.E. Fenstermacher, **S. Mordijck**, R.A. Moyer "Demonstration of Particle Exhaust Control During ELM suppression by Resonant Magnetic Perturbations in DIII-D" *Nuclear Fusion*, Volume 49, Article 092001, September 2009
- [J34] **S. Mordijck**, R.A. Moyer, T.E. Evans, X. Bonnin, J. Canik, D. Coster, M. Groth, R. Maingi, T.H. Osborne, L.W. Owen, T.W. Petrie, D. Reiter, J.G. Watkins, and E.A. Unterberg "Fluid modeling of an ELMing H-mode and a RMP H-mode" *Journal of Nuclear materials 2009 (Plasma surface interactions 2008)*, Volumes 390-391, Pages 299-302, June 2009.
- [J35] E.A. Unterberg, N.H. Brooks, T.E. Evans, M.E. Fenstermacher, D.L. Hillis, R. Maingi, **S. Mordijck**, R.A. Moyer, T.H. Osborne, T.W. Petrie, J.G. Watkins "Experimental comparison of recycling and pumping changes during resonant magnetic perturbation experiments at low and high triangularity" *Journal of Nuclear materials 2009 (Plasma surface interactions 2008)*, Volumes 390-391, Pages 486-489, June 2009.
- [J36] O. Schmitz, T.E. Evans, M.E. Fenstermacher, H. Frerichs, M.W. Jakubowski, M.J. Schaffer, A. Wingen, W.P. West, N.H. Brooks, K.H. Burrell, J.S. deGrassie, Y. Feng, K.H. Finken, P. Gohil, M. Groth, I. Joseph, C.J. Lasnier, M. Lehnen, A.W. Leonard, **S. Mordijck**, R.A. Moyer, A. Nicolai, T.H. Osborne, D. Reiter, U. Samm, K.H. Spatschek, H. Stoschus, B. Unterberg, E.A. Unterberg, J.G. Watkins, R. Wolf and the DIII-D and TEXTOR Teams "Aspects of three dimensional transport for ELM control experiments in ITER-similar shape plasmas at low collisionality in DIII-D" *Plasma Physics and Controlled Fusion*, Volume 50, Article 124029, 2008.

#### • International Conference Proceedings

- [C1] T. Tala, H. Nordman, A. Salmi, D. Tegnered, C. Bourdelle, P. Carvalho, A. Czarnecka, L. Giacomelli, C. Giroud, E. Belonohy, J. Hillesheim, C. Maggi, P. Mantica, M. Maslov, L. Meneses, S. Menmuir, S. Mordijck, V. Naulin, J. Juul Rasmussen, G. Sips, M. Tsalas, H. Weisen and JET contributors "Four separate Dimensionless Collisionality Scans in Various JET scenarios" *Conference proceedings 44th EPS Conference 2017*.
- [C2] **S. Mordijck**, X. Wang, L. Zeng, E.J. Doyle, T.L. Rhodes, L. Schmitz, C. Chrystal, Z. Yan and G.R. McKee "Role of Turbulence in Determining Particle Transport and Confinement" *Conference proceedings of the 16th IAEA Fusion Energy Conference 2016*.
- [C3] T. Tala, A. Salmi, C. Bourdelle, L. Giacomelli, C. Giroud, R. Gomes, J. Hillesheim, A. E. Jrvinen, C. Maggi, P. Mantica, M. Maslov, L. Meneses, S. Menmuir, S. Moradi, S.

- Mordijck, V. Naulin, H. Nordman, J. J. Rasmussen, A. Sips, J. Svensson, M. Tsalias, and H. Weisen "Density peaking in JET: Driven by fueling or transport" *Conference proceedings of the 16th IAEA Fusion Energy Conference 2016*.
- [C4] **S. Mordijck**, C. Chrystal, B.A. Grierson, W.H. Ko, T.L. Rhodes, L. Schmitz, L. Zeng, P.H. Diamond, E.J. Doyle, C.C. Petty, A. Salmi, W.M. Solomon, G.M. Staebler, T. Tala, X. Wang, "Density driven rotation changes in DIII-D H-mode plasmas" *Conference proceedings 43rd EPS Conference 2016*.
- [C5] A. Salmi, T. Tala, P. Mantica, A. Jrvinen, L. Meneses, **S. Mordijck**, V. Naulin, J. Juul Rasmussen, J. Svensson, L. Giacomelli, R. Gomes, M. Groth, T. Koskela, C. Maggi, M. Maslov, G. Sips H. Weisen and JET contributors "Particle source and edge transport studies in JET H-mode gas puff modulation experiments" *Conference proceedings 42nd EPS Conference 2015*.
- [C6] T. Tala, P. Mantica, A. Salmi, C. Bourdelle, C. Giroud, J. Hillesheim, C. Maggi, L. Meneses, M. Maslov, S. Menmuir, S. Moradi, **S. Mordijck**, V. Naulin, H. Nordman, J. Juul Rasmussen, G. Sips, A. Sirinelli, M. Tsalias, H. Weisen and JET contributors "Dimensionless Collisionality Scans for Core Particle Transport in JET" *Conference proceedings 42nd EPS Conference 2015*.
- [C7] **S. Mordijck**, L. Zeng, L. Schmitz, E.J. Doyle, W-H. Ko, X. Wang, T.L. Rhodes, G. Staebler, P.H. Diamond, B. Grierson, G.R. McKee, C.C. Petty, A. Salmi, W. Solomon, T. Tala and the DIII-D team "Role of turbulence regime and ExB shear upon particle transport in DIII-D H-mode plasmas" *Conference proceeding of the 25th IAEA Fusion Energy Conference 2014*.
- [C8] A. Salmi, T. Tala, C. Bourdelle, H. Bufferand, P. Mantica, L. Meneses, **S. Mordijck**, P. Tamain, M. Groth, J. Hillesheim, C. Maggi, M. Maslov, V. Naulin, J. Juul Rasmussen, G. Sips, A. Sirinelli, M. Tsalias, H. Weisen, M. Wischmeier and JET-EFDA contributors "Gas puff modulation experiments in JET L- and H-mode plasmas" *Conference proceeding 41st EPS Conference 2014*.
- [C9] E.J. Doyle, L. Zeng, G.M. Staebler, T.E. Evans, T.C. Luce, G.R. McKee, **S. Mordijck**, R.A. Moyer, W.A. Peebles, C.C. Petty, T.L. Rhodes "Particle transport results from collisionality scans and perturbative experiments on DIII-D" *Conference proceeding of 24th IAEA Fusion Energy Conference 2012*.
- [C10] G.R. McKee, Z. Yan, C. Holland, R.J. Buttery, T.E. Evans, R.A. Moyer, **S. Mordijck**, R. Nazikian, T.L. Rhodes, O. Schmitz and M.R. Wade "Turbulence and transport response to resonant magnetic perturbations in ELM-suppressed plasmas on DIII-D" *Conference proceeding of 24th IAEA Fusion Energy Conference 2012*.
- [C11] T.W. Petrie, T.E. Evans, N.H. Brooks, M.E. Fenstermacher, J.R. Ferron, B. Hudson, A.W. Hyatt, T.C. Luce, C.J. Lasnier, **S. Mordijck**, P.A. Politzer, M.E. Rensink, M.J. Schaffer, P.B. Snyder, J.G. Watkins "Results from Radiating Divertor Experiments with RMP ELM Suppression" *Conference proceeding of 23rd IAEA Fusion Energy Conference 2010*.
- [C12] O. Schmitz, T.E. Evans, M.E. Fenstermacher, H. Stoschus, E.A. Unterberg, J.W. Coenen, H. Frerichs, M.W. Jakubowski, R. Laengner, C.J. Lasnier, **S. Mordijck**, R.A. Moyer, T.H. Osborne, H. Reimerdes, D. Reiter, U. Samm, B. Unterberg and the DIII-D and TEXTOR teams "Key results from the DIII-D/TEXTOR Collaboration on the Physics of Stochastic Boundaries projected to ELM Control at ITER" *Conference proceeding of 23rd IAEA Fusion Energy Conference 2010*.

- [C13] A. Kirk, E. Nardon, P. Tamain, P. Denner, Y. Liu, H. Meyer, **S. Mordijck**, D. Temple and the MAST team “Magnetic perturbation experiments on MAST using internal coils” *Conference proceeding of 23rd IAEA Fusion Energy Conference 2010*.
- [C14] B. Lloyd, et al. **S. Mordijck**, and the MAST and NBI teams “Overview of Physics Results from MAST” *Conference proceeding of 23rd IAEA Fusion Energy Conference 2010*.
- [C15] T.E. Evans, M.E. Fenstermacher, M. Jakubowski, R.A. Moyer, T.H. Osborne, M.J. Schaffer, O. Schmitz, J.G. Watkins, L. Zeng, L.R. Baylor, J.A. Boedo, K.H. Burrell, J.S. deGrassie, P. Gohil, I. Joseph, C.J. Lasnier, A.W. Leonard, **S. Mordijck**, C.C. Petty, R.I. Pinsker, T.L. Rhodes, J.C. Rost, P.B. Snyder, E. Unterberg W.P. West “Operating Characteristics in DIII-D ELM-Suppressed RMP H-modes with ITER Similar Shapes” *Conference proceeding of 22nd IAEA Fusion Energy Conference 2008*.

- **Miscellaneous**

- [M1] **S. Mordijck** ”Nuclear Energy Symposium” Panel, *W&M Environmental Law and Policy Review*, February, 2017.
- [M2] **S. Mordijck** “Role of fusion research at W&M” Interview, *Ringling Far and Near*, August, 2013.
- [M3] **S. Mordijck** “How will ITER be affected by density loss when limiting the transient heat losses caused by instabilities?” Online Article, *Labtalk from IOPScience*, May 29th 2012.
- [M4] **S. Mordijck** “Closer to a solution” Ideation magazine, W&M Alumni Magazine, Phys.org website, Fall 2012.

## Presentations

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- [T1] "Role of turbulence in determining particle transport in DIII-D" *59th APS-DPP meeting contributed talk*, Milwaukee, WI, USA, October 23, 2017.
- [T2] "Fueling versus Particle Pinch in opaque edge plasmas (TC-27)" *ITPA Transport and Confinement*, Helsinki, Finland, September 18, 2017.
- [T3] "Particle transport and collisionality in DIII-D" *ITPA Transport and Confinement*, Princeton, New Jersey, USA, May 2, 2017.
- [T4] "Update on TC-27" *ITPA Transport and Confinement*, Naka, Japan, October 26, 2016.
- [T5] "Series of Lectures on Edge Turbulence, H-mode, Resonant Magnetic Perturbations and changes in transport" *Seminar Physics department PKU*, Beijing, China, August - September, 2016.
- [T6] "The role of the plasma edge in achieving high performance fusion energy" *Seminar Applied Science, The College of William and Mary*, Williamsburg, VA, May, 25, 2016.
- [T7] "Necessity of core-edge integration to achieve high performance fusion energy", *Seminar Plasma Science Center, EPFL*, Lausanne, March 21, 2016.
- [T8] "Changes in transport with Resonant Magnetic Perturbations in Tokamaks" *Seminar IPP Greifswald*, Greifswald, March 18, 2016.
- [T9] "Changes in transport with Resonant Magnetic Perturbations in Tokamaks" *Physics Seminar UCSD*, La Jolla, January 25, 2016.
- [T10] "DIII-D particle transport studies" *ITPA Transport and Confinement*, Garching, October 23, 2015.
- [T11] "The effects of 3D fields on turbulence in DIII - D" *Stochasticity in Fusion Plasmas*, Bad Honnef, September, 11, 2015.
- [T12] "The effects of 3D fields on turbulence in DIII - D" *42nd EPS meeting on plasma physics*, Lisbon, June, 23, 2015.
- [T13] "TC-27: Inward pinch versus neutral fueling in opaque SOL plasmas" *ITPA Transport and Confinement*, Caderache, May, 6, 2015.
- [T14] "The effect of 3D fields on turbulence in DIII-D" *Transport Task Force Workshop*, Salem, April, 30, 2015.
- [T15] "Role of radial electric field in determining the width of the stochastic layer" *ITPA Pedestal and Edge Physics*, Caderache, October, 20, 2014.
- [T16] "Changes in particle transport as a result of Resonant Magnetic Perturbations" *Plasma Physics Seminar UT Austin*, Austin, September, 12, 2014.
- [T17] "Changes in particle and momentum transport across ITG-TEM regime in DIII-D H-mode plasmas" *Transport Task Force Workshop*, San Antonio, April, 24, 2014.

- [T18] “The role of the plasma edge in achieving high performance fusion energy” *Seminar Princeton University*, Princeton, NJ, March, 26, 2014.
- [T19] “Changes in particle transport as a function of collisionality and rotation” *55th Annual APS DPP Meeting*, Denver, CO, USA, November, 12, 2013.
- [T20] “Particle transport studies on DIII-D using gas puff modulation” *ITPA Transport & Confinement*, Kyushu, October 9, 2013.
- [T21] “Gas puff modulation experiments to study particle transport on DIII-D” *TF meeting at CCFE*, Culham, UK, September 19, 2013.
- [T22] “The radial electric field as a measure for field penetration of Resonant Magnetic Perturbations” *Friday Science Meeting*, San Diego, USA, September 6, 2013.
- [T23] “Short update on experiment on momentum and particle transport” *Friday Science Meeting*, San Diego, USA, May 31, 2013.
- [T24] “What toroidal rotation can reveal about the penetration of magnetic fields” *Stochasticity in Fusion Plasmas*, Juelich, Germany, March 18, 2013.
- [T25] “Role of the electric field for ELM suppression and particle transport with RMPs in DIII-D” *Monday Seminar, IPP-Garching*, Garching, Germany, March 11, 2013.
- [T26] “Particle transport changes as a result of RMPs” *Transport TaskForce*, Annapolis, Maryland, USA, April 12, 2012.
- [T27] “Particle transport changes as a result of RMPs” *ITPA Pedestal and Edge Physics*, Hefei, China, April 4, 2012.
- [T28] “Experimental changes in particle transport from resonant magnetic perturbations (RMPs) in DIII-D” *Physics seminar, PPPL*, Princeton, New Jersey, USA, March 8, 2012.
- [T29] “Experimental changes in particle transport from resonant magnetic perturbations (RMPs) in DIII-D” *Physics seminar, MIT*, Boston, Massachusetts, USA, March 2, 2012.
- [T30] “Experimental changes in particle transport from resonant magnetic perturbations (RMPs) in DIII-D” *Physics seminar, West Virginia University*, Morgantown, West Virginia, USA, January 27, 2012.
- [T31] “Particle transport modification due to resonant magnetic perturbations on the DIII-D tokamak” *53rd APS Meeting of the Division of Plasma Physics*, Salt Lake City, Utah, USA, November 14, 2011.
- [T32] “Particle transport modification due to resonant magnetic perturbations on the DIII-D tokamak” *Physics seminar, The College of William and Mary*, Williamsburg, Virginia, USA, November 4, 2011.
- [T33] “Particle transport as result of Resonant Magnetic Perturbations.” *Stochasticity in Fusion Plasmas*, Juelich, Germany, April, 2011.
- [T34] “Experimental changes in particle transport from Resonant Magnetic Perturbations (RMPs) in DIII-D.” *Applied Science Seminar, The College of William and Mary*, Williamsburg, Virginia, USA, March 30, 2011.

- [T35] “Investigation of correlation between RMPs and density pump-out on MAST and DIII-D” *51st APS Meeting of the Division of Plasma Physics*, Atlanta, Georgia, USA, November 2-6, 2009.
- [T36] “Investigation of correlation between RMPs and density pump-out on MAST and DIII-D” *Science Meeting MAST*, UKAEA, Culham, UK, October, 2009.
- [T37] “Investigation of correlation between RMPs and density pump-out on MAST and DIII-D” *17th ITPA Pedestal Group*, PPPL, Princeton, USA, October, 2009.
- [T38] “Increased particle transport due to RMP modeled with TRIP3D and SOLPS5” *Friday Science Meeting*, General Atomics, San Diego, USA, May, 2009.
- [T39] “Modeling of particle transport in ELMing and RMP H-modes”, *Transport TaskForce*, San Diego, USA, April, 2009.
- [T40] “Modeling of particle transport in ELMing and RMP H-modes”, *Stochasticity in Fusion Plasmas*, Juelich, Germany, March, 2009.

## Memberships

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- APS member

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