Theodore Erler: Curriculum Vitae

Personal information

Date of Birth:	November 23, 1975
Nationality:	United States
email:	*tchovi@gmail.com*
Address:	Horní 77, Zdiby, 250 66, Czech Republic
ORCID ID:	orcid.org/0000-0003-3640-195X
ResearcherID (WoS):	C-2430-2015
Scopus ID:	7004168946
INSPIRE ID:	INSPIRE-00079822

Education

1998 - 2005	PhD in Theoretical Physics University of California, Santa Barbara Thesis adviser: David Gross
1992 - 1998	B.Sc. in Physics, *summa cum laude* Santa Clara University

Current position

2017 - present	Senior Researcher Institute of Physics of the ASCR, v.v.i. Prague, Czech Republic

Previous positions

2013 - 2016	Research Associate Cosmology Chair, Arnold Sommerfeld Center for Theoretical Physics LMU Munich, Germany
2008 - 2013	Postdoc Institute of Physics of the ASCR, v.v.i. Czech Republic
2006 - 2008	Postdoc Harish-Chandra Research Institute India

Visiting positions

May 2023	Program "Matrix Models and String Field Theory,"
	Center of Sciences, Benasque
March - May 2019	Program "String Theory from a Worldsheet Perspective,"
	Galileo Galilei Institute, Florence
December 2009	Program "Current Trends in String Field Theory,"
	Asia Pacific Center for Theoretical Physics, Pohang
July 2009	Summer Program, Aspen Center for Theoretical Physics
January 2009	Program "Fundamental Aspects of Superstring Theory,"
	Kavli Institute for Theoretical Physics, Santa Barbara

Grants recieved

2018	Team member, GAČR project 18-07776S
2016	Team member, CoGradDS
2012	Co-investigator, Eduard Czech Grant P201/12/G028

Teaching activities

September 2022-present	Doctoral advisor (Vinícius Bernardes da Silva)
	MFF Charles University, Prague
January 2020	Lecturer at "Winter School for Geometry and Physics"
	Srni, Czech Republic
March 2019	Lecturer for Training Week of GGI workshop
	"String Theory from a Worldsheet Perspective"
	Florence, Italy
February 2018	Lecturer at "School on String Theory and String Phenomenology"
	HRI India
2017	Master's thesis advisor (Maximilian Jokel)
	LMU Munich
2015	Bachelor thesis advisor (Mattias Traube)
	LMU Munich
2013 - 2016	Tutor, General Relativity, Statistical Mechanics and Cosmology
	LMU Munich
May 2015	Lecturer at "Introductory School on String Field Theory
	and Higher Spin Theory"
	Sichwan University, Chengdu, China

2005	Instructor, Optics
	Brooks Institute of Photography, Santa Barbara, California
1998-2004	Teaching Assistant, General Physics, Classical Mechanics,
	Electromagnatism and Advanced Quantum Field Theory
	UCSB, Santa Barbara, California

Organization of scientific meetings

2022	Main organizer, String field theory 2022,
	61 participants, Prague, Czech Republic.
2020	Co-organizer, Workshop on Fundamental Aspects of String Theory,
	34 Speakers, São Paulo, Brazil (online).
2011	Co-organizer, String Field theory and Related Aspects,
	30 Participants, Prague, Czech Republic.
2011	Co-organizer, Quantum Theory and Symmetries 7,
	400 Participants, Prague, Czech Republic.

Refereeing activities

Journals	JHEP, Nuclear Physics B, Communications in Mathematical Physics,
	European Physics Journal C.
Funding Agencies	Isreal Science Foundation
PhD Examiner	M. Kudrna (FZU, 2019), J. Vošmera (FZU 2020).

Conference talks and posters

May 2023	*Introduction to SFT*
	Matrix Models and String Field Theory, Benasque, Spain
September 2022	*Lightcone gauge in covariant SFT*
	String field theory 2022, Prague, Czech Republic
September 2021	*Homotopy intertwining solution*
	SFT@cloud 2021 (online)
March 2021	*Lightcone gauge in covariant SFT*
	Homotopy Algebra of Quantum Field Theory and its Application,
	Kyoto, Japan (online)
June 2020	*Mapping between Witten and lightcone SFTs*
	Workshop on Fundamental Aspects of String Theory,
	São Paulo, Brazil (online)

May 2019	*Rolling near the tachyon vacuum* International Conference on String Field Theory and String Purturbation Theory, Florence, Italy
February 2019	*Background independence in open string theory* Quantum spacetime '19, Bratislava, Slovakia
February 2018	*New solutions from boundary condition changing operators* Discussion Meeting on String Field Theory and String Phenomenology, HRI, India
June 2017	*Sen-Witten in the Large Hilbert Space* SFT@HIT, Tel Aviv, Israel
March 2017	*Superstring Field Theory* Workshop on Recent Developments on Light Front, LMU, Munich, Germany
June 2016	*Comments on WZW-like actions* String Field Theory and Related Aspects, São Paulo, Brazil
February 2016	*Superstring Field Theory* HRI workshop on string theory, Allahabad, India.
May 2015	*Ramond equations of motion in superstring field theory* String Field Theory and Related Aspects, Chengdu, China.
July 2014	*Analytic solution for tachyon condensation in superstring field theory* String Field Theory and Related Aspects, Trieste, Italy.
June 2014	*String field theory solution for any open string background* (poster) Strings 2014, Princeton, USA.
October 2012	*Connecting Solutions by Singular Gauge Transformations* String Field Theory and Related Aspects, Jerusalem, Israel, October 2012.
September 2012	*Why does String Field Theory Have Interesting Solutions?* AGMP workshop, Brno, Czech Republic.
September 2011	*An Integrability Condition for Singular Gauge Transformations* String Field Theory and Related Aspects, Prague, Czech Republic.
October 2010	*Exotic Universal Solutions in Cubic Superstring Field Theory* String Field Theory and Related Aspects, Kyoto, Japan.
December 2009	*Tachyon vacuum in Berkovits' Superstring Field Theory* APCTP focus program on current trends in string field theory, Pohang, Korea.

April 2009 *Simple analytic solution for Tachyon condensation*
String Field Theory and Related Aspects, Moscow, Russia.

March 2009 *Simple analytic solution for Tachyon condensation*,
Simons Center workshop on String Field Theory, Stony Brook, USA.

December 2007 *Progress in Analytic Solutions in Superstring Field Theories*
Indian Strings Meeting, Allahabad, India.

December 2006 *Split String Formalism and the Closed String Vacuum*
Indian Strings Meeting, Puri, India.

Seminars

June 2022 *The closed string field theory action vanishes*
MP Seminar, Prague, Czech Republic.

September 2021 *Relating covariant and lightcone string field theories*
MIT, Boston, USA.

June 2018 *Singular OPEs and open string background independence*
Torino University, Italy.

November 2016 *Superstring Field Theory*
Torino University, Italy.

October 2014 *String Field Theory Solution for Any Open String Background*,
Resolving Witten's Superstring Field Theory,
Analytic Solution for Tachyon Condensation in Superstring Field theory,
Seminar Series, Tokyo University, Komaba, Japan.

September 2014 *String Field Theory Solution for Any Open String Background*
IPMU Japan.

June 2014 *String Field Theory Solution for Any Open String Background*
LMU Munich, Germany.

May 2014 *Resolving Witten's Superstring Field Theory*
Prague Institute of Physics, Czech Republic.

March 2014 *Analytic Solution for Tachyon Condensation in Superstring Field Theory*
Torino University, Italy.

February 2014 *Resolving Witten's Superstring Field Theory*
LMU Munich, Germany.

November 2013 *Analytic Solution for Tachyon Condensation in Superstring Field Theory*
LMU Munich, Germany.

May 2013	*The Scoop on String Field Theory*
	Queen Mary College, UK
March 2013	*Comments on the Tachyon Vacuum in Superstring Field Theory*
	Tokyo University, Komaba, Japan.
December 2012	*The Identity String Field and the Sliver Frame Level Expansion*
	Tokyo University, Komaba, Japan.
June 2011	*Comments on Lumps from RG flows*
	Tokyo University, Komaba, Tokyo, Japan.
April 2010	*Simple analytic solution for Tachyon condensation*
	Joint ULB and VUB seminar, Brussels, Belgium.
September 2007	*Progress in Analytic Solutions in Superstring Field Theories*
	J. Nehru University, Delhi, India.
June 2007	*Analytic Progress in Open String Field Theories*
	KITP seminar, Santa Barbara, California.

Citation metrics (According to INSPIRE as of May 6, 2023)

Number of citeable articles:	38
Citation count:	1360
h-index:	24

Published articles

(1) T. Erler, "The closed string field theory action vanishes," JHEP **10**, 055 (2022).
(doi:10.1007/JHEP10(2022)055)

(2) T. Erler and H. Matsunaga, "Mapping between Witten and lightcone string field theories," JHEP **11**, 208 (2021).
(doi:10.1007/JHEP11(2021)208)

(3) T. Erler and C. Maccaferri, "String field theory solution for any open string background. Part II," JHEP **01**, 021 (2020).
(doi:10.1007/JHEP01(2020)021)

(4) T. Erler, T. Masuda and M. Schnabl, "Rolling near the tachyon vacuum," JHEP **04**, 104 (2020).
(doi:10.1007/JHEP04(2020)104)

(5) T. Erler, C. Maccaferri and R. Noris, "Taming boundary condition changing operator anomalies with the tachyon vacuum," JHEP **06**, 027 (2019).
(doi:10.1007/JHEP06(2019)027)

(6) T. Erler and S. Konopka, "Vertical Integration from the Large Hilbert Space," JHEP **12**, 112 (2017).
(doi:10.1007/JHEP12(2017)112)

(7) T. Erler, "Superstring Field Theory and the Wess-Zumino-Witten Action," JHEP **1710**, 057 (2017).
(doi:10.1007/JHEP10(2017)057)

(8) T. Erler, S. Konopka and I. Sachs, "One Loop Tadpole in Heterotic String Field Theory," JHEP **11**, 056 (2017).
(doi:10.1007/JHEP11(2017)056)

(9) T. Erler, "Supersymmetry in Open Superstring Field Theory," JHEP **1705**, 113 (2017).
(doi:10.1007/JHEP05(2017)113)

(10) T. Erler, Y. Okawa and T. Takezaki, "Complete Action for Open Superstring Field Theory with Cyclic A_∞ Structure," JHEP **1608**, 012 (2016).
(doi:10.1007/JHEP08(2016)012)

(11) T. Erler, "Relating Berkovits and A_∞ superstring field theories; large Hilbert space perspective," JHEP **1602**, 121 (2016).
(doi:10.1007/JHEP02(2016)121)

(12) T. Erler, S. Konopka and I. Sachs, "Ramond Equations of Motion in Superstring Field Theory," JHEP **1511**, 199 (2015).
(doi:10.1007/JHEP11(2015)199)

(13) T. Erler, "Relating Berkovits and A_∞ superstring field theories; small Hilbert space perspective," JHEP **1510**, 157 (2015).
(doi:10.1007/JHEP10(2015)157)

(14) T. Erler and C. Maccaferri, "String Field Theory Solution for Any Open String Background," JHEP **1410**, 029 (2014).
(doi:10.1007/JHEP10(2014)029)

(15) T. Erler, S. Konopka and I. Sachs, "NS-NS Sector of Closed Superstring Field Theory," JHEP **1408**, 158 (2014).
(doi:10.1007/JHEP08(2014)158)

(16) T. Erler, S. Konopka and I. Sachs, "Resolving Witten's superstring field theory," JHEP **1404**, 150 (2014).
(doi:10.1007/JHEP04(2014)150)

(17) T. Erler, "Analytic solution for tachyon condensation in Berkovits' open superstring field theory," JHEP **1311**, 007 (2013).
(doi:10.1007/JHEP11(2013)007)

(18) T. Erler, "The Identity String Field and the Sliver Frame Level Expansion," JHEP **1211**, 150 (2012).
(doi:10.1007/JHEP11(2012)150)

(19) T. Erler and C. Maccaferri, "The Phantom Term in Open String Field Theory," JHEP **1206**, 084 (2012).
(doi:10.1007/JHEP06(2012)084)

(20) T. Erler and C. Maccaferri, "Connecting Solutions in Open String Field Theory with Singular Gauge Transformations," JHEP **1204**, 107 (2012).
(doi:10.1007/JHEP04(2012)107)

(21) T. Erler and C. Maccaferri, "Comments on Lumps from RG flows," JHEP **1111**, 092 (2011).
(doi:10.1007/JHEP11(2011)092)

(22) T. Erler, "Exotic Universal Solutions in Cubic Superstring Field Theory," JHEP **1104**, 107 (2011).
(doi:10.1007/JHEP04(2011)107)

(23) T. Erler and M. Schnabl, "A Simple Analytic Solution for Tachyon Condensation," JHEP **0910**, 066 (2009).
(doi:10.1088/1126-6708/2009/10/066)

(24) T. Erler, "Tachyon Vacuum in Cubic Superstring Field Theory," JHEP **0801**, 013 (2008).
(doi:10.1088/1126-6708/2008/01/013)

(25) T. Erler, "Marginal Solutions for the Superstring," JHEP **0707**, 050 (2007).
(doi:10.1088/1126-6708/2007/07/050)

(26) T. Erler, "Split String Formalism and the Closed String Vacuum, II," JHEP **0705**, 084 (2007).
(doi:10.1088/1126-6708/2007/05/084)

(27) T. Erler, "Split String Formalism and the Closed String Vacuum," JHEP **0705**, 083 (2007).
(doi:10.1088/1126-6708/2007/05/083)

(28) T. Erler and N. Mann, "Integrable open spin chains and the doubling trick in N=2 SYM with fundamental matter," JHEP **0601**, 131 (2006).
(doi:10.1088/1126-6708/2006/01/131)

(29) T. Erler, "A Fresh look at midpoint singularities in the algebra of string fields," JHEP **0503**, 042 (2005).
(doi:10.1088/1126-6708/2005/03/042)

Review articles

(1) T. Erler, "Four Lectures on Analytic Solutions in Open String Field Theory," Phys. Rept. **980**, 1-95 (2022).
(doi:10.1016/j.physrep.2022.06.004).

(2) T. Erler, "Four Lectures on Closed String Field Theory," Phys. Rept. **851**, 1-36 (2020).
(doi:10.1016/j.physrep.2020.01.003)

Preprints and conference proceedings

(1) T. Erler, Y. Okawa and T. Takezaki, "A_∞ structure from the Berkovits formulation of open superstring field theory,"
(arXiv:1505.01659 [hep-th])

(2) T. Erler, "Topology and solutions in cubic superstring field theory," Prog. Theor. Phys. Suppl. **188**, 41 (2011).
(doi:10.1143/PTPS.188.41)

(3) T. Erler, "A simple analytic solution for tachyon condensation," Theor. Math. Phys. **163**, 705 (2010) [Teor. Mat. Fiz. **163**, 366 (2010)].
(doi:10.1007/s11232-010-0053-z)

(4) T. Erler, "Level truncation and rolling the tachyon in the lightcone basis for open string field theory,"
(hep-th/0409179)

(5) T. Erler and D. J. Gross, "Locality, causality, and an initial value formulation for open string field theory,"
(hep-th/0406199)

(6) T. Erler, "Moyal formulation of Witten's star product in the fermionic ghost sector,"
(hep-th/0205107)

Prague, May 6, 2023