

List of Publications

Sergio Cecotti

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(1980–1993)

- (1) S. Cecotti, *The $U(1)$ Problem in Generalized Theta Vacua*, Nuovo Cimento **55A** 101 (1980).
- (2) S. Cecotti, *The $U(1)$ Problem and Translational Invariance*, Phys. Lett. **95B** 401 (1980).
- (3) S. Cecotti, *Unbroken Flavour Symmetries in Confining Gauge Theories*, Nuovo Cimento **65A** 470 (1981).
- (4a) S. Cecotti and L. Girardello, *Functional Measure, Topology and Dynamical Supersymmetry Breaking*, Phys. Lett. **110B** 39 (1982).
- (4b) S. Cecotti and L. Girardello, *Functional Measure, Topology and Dynamical Supersymmetry Breaking*, In SUPERSYMMETRY, Ed. by S. Ferrara (World Scientific, Singapore, 1987).
- (5) S. Cecotti and L. Girardello, *Supersymmetry and t Hoofts Twisted Functional Integral*, Nucl. Phys. **B208** 265 (1982).
- (6a) S. Cecotti and L. Girardello, *Stochastic and Parastochastic Aspects of Supersymmetric Functional Measures*, Ann. of Phys. (NY) **145** 81 (1983).
- (6b) S. Cecotti and L. Girardello, *Stochastic and Parastochastic Aspects of Supersymmetric Functional Measures*, In STOCHASTIC QUANTIZATION ed by P.H. Damgaard and H. Hffel, (World Scientific, Singapore, 1988).
- (7) S. Cecotti and L. Girardello, *Local Nicolai Mappings in Extended Supersymmetry*, Preprint IC/82/105
- (8) S. Cecotti and L. Girardello, *Stochastic Processes in Lattice (Extended) Supersymmetry*, Nucl. Phys. **B266** 417 (1983).
- (9) R. Barbieri and S. Cecotti, *Radiative Corrections to the Effective Potential in $N=1$ Supersymmetry*, Z. Phys. **17** 183 (1983).
- (10) S. Cecotti, *Stochastic Geometry of the $O(2)$ Fermionic String*, Nuovo Cimento **76A** 627 (1983) [E: **79A** 127 (1984)].

- (11) S. Cecotti, *Stochastic Processes in Lattice Supersymmetry*, In LATTICE GAUGE THEORIES, SUPERSYMMETRY AND GRAND UNIFICATION, proceedings Of the 7th John Hopkins Workshop, Bonn 1983. Ed. by G. Domokos and S. Kovesi-Domokos. (World Scientific, Singapore, 1983), pages 131-153.
- (12) S. Cecotti and L. Girardello, *A Supersymmetry Anomaly and the Fermionic String*, Nucl. Phys. **B239** (1984) 573.
- (13) S. Cecotti, L. Girardello and M. Porrati, *Two into One Wont Go*, Phys. Lett. **145B** (1984) 61.
- (14) S. Cecotti, L. Giradello and M. Porrati, *Constraints on Partial Super-Higgs*, Nucl. Phys. **B268** (1986) 295.
- (15) S. Cecotti, L. Girardello and M. Porrati, *Some Features of Supersymmetry Breaking in $N=2$ Supergravity*, Phys. Lett. **151B** (1984) 363.
- (16) S. Cecotti, *A Trick for the Computation of Some Non-Gaussian Path-Integrals*, Lett. Nuovo Cimento **42** (1984) 363.
- (17) S. Cecotti, J.-P. Derendinger, S. Ferrara, L. Girardello and M. Roncadelli, *Properties of $E(6)$ breaking and superstring theory*, Phys. Lett. **156B** (1985) 318.
- (18) S. Cecotti, L. Girardello and M. Porrati, *The Ward identities of Local Supersymmetry and Partial Super-Higgs*, In NEW TRENDS IN PARTICLE PHYSICS, proceedings of the 9th (1985) John Hopkins workshop, ed. by L. Lusanna.
- (19) S. Cecotti, S. Ferrara, L. Girardello and M. Porrati, *Lorentz Chern-Simons Terms in $N=1$ 4D Supergravity Consistent with String Compactification*, Phys. Lett. **164B** (1985) 46.
- (20) S. Cecotti, L. Giradello and M. Porrati, *An Exceptional $N=2$ Supergravity Model with Partial Super-Higgs And Flat Potential*, Phys. Lett. **B168** (1986) 83.
- (21) S. Cecotti, *Lorentz Chern-Simons Interactions for the Compactified String*, (World Scientific, Singapore, 1986), pages 477-494.
- (22) R. Barbieri and S. Cecotti, *Anomalous Baryon Number Non-Conservation at Finite Temperature*, Preprint IFUP-TH 33/85 (November 1985).
- (23a) S. Cecotti, S. Ferrara, L. Girardello, M. Porrati and A. Pasquinucci, *Matter Coupling in Higher Derivative Supergravity*, Phys. Rev. **D33** (1986) 2504.

- (23b) S. Cecotti, S. Ferrara, L. Girardello, M. Porrati and A. Pasquinucci, *Matter Coupling in Higher Derivative Supergravity*, In SUPERGRAVITY IN DIVERSE DIMENSIONS, eds. A. Salam and E. Sezgin (World Scientific, Singapore, 1987).
- (24) R. Barbieri and S. Cecotti, *A Model for a Light Graviphoton*, Z. Phys. **C33** (1986) 255.
- (25) S. Cecotti, S. Ferrara, L. Girardello and M. Porrati, *Super-Khler Geometry in Supergravity and Superstrings*, Phys. Lett. **185B** (1987).
- (26) S. Cecotti, S. Ferrara and L. Girardello, *Structure of the Scalar Potential in General Higher Derivative Supergravity In Four Dimensions*, Phys. Lett. **187B** (1987) 321.
- (27) S. Cecotti, S. Ferrara and L. Girardello, *Flat Potentials in Higher Derivative Supergravity*, Phys. Lett. **187B** (1987) 327.
- (28) S. Cecotti and S. Ferrara, *Supersymmetric Born-Infeld Lagrangians*, Phys. Lett. **187B** (1987) 327.
- (29) S. Cecotti, *Higher Derivative Supergravity is Equivalent to Standard Supergravity*, Phys. Lett. **190B** (1987) 537.
- (30) S. Cecotti, S. Ferrara and L. Girardello, *Massive Vector Multiplets from Superstrings*, Nucl. Phys. **B294** (1987) 537.
- (31) S. Cecotti, S. Ferrara, L. Girardello, A. Pasquinucci and M. Porrati, *Matter-Coupled Supergravity with Gauss-Bonnet Invariants: Component Lagrangian and Supersymmetry Breaking*, Int. J. Mod. Phys. **A3** (1988) 1675.
- (32) S. Cecotti, S. Ferrara and M. Villasante, *Linear Multiplet and Super-Chern-Simons Forms in 4D-Supergravity*, Int. J. Mod. Phys. **A2** (1987) 1839.
- (33) S. Cecotti, S. Ferrara, M. Porrati and S. Sabharwal, *New Minimal Higher Derivative Supergravity Coupled to Matter*, Nucl. Phys. **B306** (1988) 160.
- (34) S. Cecotti, S. Ferrara and L. Girardello, *Gravitational Supervertices in $N=1$ 4D Superstrings*, Phys. Lett. **198B** (1987) 336.
- (35) S. Cecotti, S. Ferrara and L. Girardello, *Hidden Non-Compact Symmetries in String Theory*, Nucl. Phys. **B308** (1988) 436.
- (36) S. Cecotti, S. Ferrara and L. Girardello, *Heterotic Superstrings in Auxiliary Fied Background and Extended Space-Time Supersymmetry*, Phys. Lett. **206B** (1988) 451.

- (37) S. Cecotti, S. Ferrara and L. Girardello, *Geometry of Type II Superstrings and the Moduli Of Superconformal Field Theories*, J. Mod. Phys. **A4** (1989) 2475.
- (38) S. Cecotti, S. Ferrara and L. Girardello *A Topological Formula for the Kahler Potential of 4D $N=1,2$ Strings and its Implications for the Moduli Problem*, Phys. Lett. **213B** 443 (1988).
- (39) S. Cecotti, *Homogeneous Kahler Manifolds and T-Algebras In $N=2$ Supergravity and Superstrings*, Comm. Math. Phys. **124** (1989) 23.
- (40) S. Cecotti, *Homogeneous Kahler Spaces and Flat Potential Supergravities*, Phys. Lett. **B215** (1988) 489.
- (41) S. Cecotti, *$N=2$ Supergravity, Type IIB Superstrings and Algebraic Geometry*, Comm. Math. Phys. **131** (1990) 517-536;
- (42) S. Cecotti, L. Girardello and A. Pasquinucci, *Non-Perturbative Aspects and Exact results for the $N=2$ Landau-Ginzburg Models*, Nucl. Phys. **B328** (1989) 701.
- (43) S. Cecotti, L. Girardello and A. Pasquinucci, *Singularity-Theory and $N=2$ Supersymmetry*, Int. J. Mod. Phys. **A6** (1991) 2427.
- (44) S. Cecotti, *Stringy Cosmic Strings and Susy Gauge Theories*, Phys. Lett. **244B** (1990) 23.
- (45) S. Cecotti, *$N=2$ Landau-Ginzburg Vs. Calabi-Yau models: Non-Perturbative Aspects*, Int. J. Mod. Phys. **A6** (1991) 1749.
- (46) S. Cecotti, *Geometry of Landau-Ginzburg Families*, Nucl. Phys. **B355** (1991) 755.
- (47a) S. Cecotti and C. Vafa, *Topological Anti-Topological Fusion*, Nucl. Phys. **B367** (1991) 359-461.
- (47b) S. Cecotti and C. Vafa, *Topological Anti-Topological Fusion*, In 1991 SUMMER SCHOOL IN HIGH ENERGY PHYSICS AND COSMOLOGY ITCP series in Theoretical Physics vol 8 Edited by E. Gava, K. Narain, S. Randjbar-Daemi, E. Sezgin and Q. Shafi (World Scientific, Singapore, 1992), pages 682-784.
- (48) S. Cecotti, *Geometry of Topological Anti-topological Fusion*, In 1991 SUMMER SCHOOL IN HIGH ENERGY PHYSICS AND COSMOLOGY ITCP series in Theoretical Physics vol 8 Edited by E. Gava, K. Narain, S. Randjbar-Daemi, E. Sezgin and Q. Shafi (World Scientific, Singapore, 1992), pages 974-933.
- (49) S. Cecotti and C. Vafa, *Exact Results for Supersymmetric Sigma Models*, Phys. Rev. Letters **68** (1992) 903. [arXiv:hep-th/9111016]

- (50) S. Cecotti and C. Vafa, *Massive Orbifolds*, Mod. Phys. Lett. **A7** (1992) 1715. [arXiv:hep-th/9203066]
- (51a) S. Cecotti, P. Fendley, K. Intriligator and C. Vafa, *A New Supersymmetric Index*, Nucl. Phys. **B386** (1992) 405-452.[arXiv:hep-th/9204102]
- (51b) S. Cecotti, P. Fendley, K. Intriligator and C. Vafa, *A NEW SUPERSYMMETRIC INDEX*, In 1992 SUMMER SCHOOL IN HIGH ENERGY PHYSICS AND COSMOLOGY ITCP series in Theoretical Physics, vol. Edit by (World Scientific, Singapore, 1993) pages
- (51c) S. Cecotti, P. Fendley, K. Intriligator and C. Vafa, *A New Supersymmetric Index*, In PATHWAYS TO FUNDAMENTAL THEORY, Proceedings of the 1992 John Hopkins Workshop, vol 16, edit by L.Brink and R. Marelus (World Scientific, Singapore, 1993).
- (52a) S. Cecotti and C. Vafa, *Ising Model and N=2 Supersymmetric Theories*, Comm. Math. Phys. **157** (1993) 139.[arXiv:hep-th/9209085]
- (52b) S. Cecotti and C. Vafa, *Ising Model and N=2 Supersymmetric Theories*, In 1992 SPRING SCHOOL IN STRING THEORY Edit by (World Scientific, Singapore, 1993), pages
- (53) S. Cecotti, *Non-Perturbative Computability Vs. Integrability in SUSY QFTs*, In INTEGRABLE QUANTUM FIELD THEORY, Proceedings of the 1992 NATO Advanced Study Institute, vol 310 Edited by I. Bonora, G. Mussardo, A. Schwimmer, L. Girardello And M. Martellini (Plenum Press, New York, 1993).
- (54) S. Cecotti and C. Vafa, *On Classification of N=2 Supersymmetric Theories*, Comm. Math. Phys. **158** (1993) 569.[arXiv:hep-th/9211097]
- (55a) M. Bershadsky, S. Cecotti, H. Ooguri and C. Vafa, *Holomorphic Anomalies in Topological Field Theories*, (with an appendix by S. Katz) Nucl. Phys. **405B** (1993) 279-304. [arXiv:hep-th/9302103]
- (55b) M. Bershadsky, S. Cecotti, H. Ooguri and C. Vafa, *Holomorphic Anomalies in Topological Field Theories*, (with an appendix by S. Katz) in MIRROR SYMMETRY, II, Ed. by B. Greene and S.-T. Yau, AMS (1996).
- (56) S. Cecotti, *Exact Results for Two-Dimensional N=2 Supersymmetric Theories (An Introduction to the tt* technique)*, in STRING THEORY, GAUGE THEORY AND QUANTUM GRAVITY 1993 (Proceedings of the Trieste Spring School and Workshop, 1993) edited by R. Dijkgraaf, I. Klebanov, K.S. Narain and S. Randjabar-Daemi (World Scientific, Singapore, 1994) pages 141-188.
- (57) M. Bershadsky, S. Cecotti, H. Ooguri and C. Vafa, *Kodaira-Spencer Theory of Gravity and Exact Results for Quantum String Amplitudes*, Comm. Math. Phys. **165** (1994) 311-428 [arXiv:hep-th/9309140]

(2008—)

- (58) Sergio Cecotti and Ashoke Sen, *Coulomb Branch of the Lorentzian Three Algebra Theory*, arXiv:0806.1990 [hep-th].
- (59) Sergio Cecotti, Miranda C.N. Cheng, Jonathan J. Heckman, and Cumrun Vafa, *Yukawa Couplings in F-Theory and Non-Commutative Geometry*, in SURVEYS IN DIFFERENTIAL GEOMETRY volume **15**, “*Perspectives in mathematics and physics: Essays dedicated to Isadore Singer’s 85th birthday*”, edited by T. Mrowka and S.-T. Yau, pages 38–97, International Press of Boston, Somerville, (2011), arXiv: 0910.0477 [hep-th].
- (60) Sergio Cecotti and Cumrun Vafa, *BPS Wall Crossing and Topological Strings*, arXiv: 0910.2615.
- (61) Sergio Cecotti and Cumrun Vafa, *2d Wall-crossing, R-twisting and a supersymmetric index*, arXiv: 1002.3638 [hep-th].
- (62) E.A. Bergshoeff, S. Cecotti, H. Samtleben, and E. Sezgin, *Superconformal sigma models in three dimensions*, Nucl. Phys. **B838** (2010) 266–297, arXiv:1002.4411 [hep-th].
- (63) Sergio Cecotti, Andrew Neitzke, and Cumrun Vafa, *R-Twisting and 4d/2d correspondences*, arXiv: 1006.3435 [hep-th].
- (64) Sergio Cecotti, Clay Córdova, Jonathan J. Heckman, and Cumrun Vafa, *T-branes and Monodromy*, JHEP **1107**:030 (2011), arXiv:1010.5780 [hep-th].
- (65) Sergio Cecotti and Cumrun Vafa, *Classification of complete $\mathcal{N} = 2$ supersymmetric theories in 4 dimensions*, to appear in the Proceedings of the ‘Strings/mathematics meeting at The University of Pennsylvania’ (Spring 2011), arXiv:1103.5832 [hep-th].
- (66) Sergio Cecotti and Michele del Zotto, *On Arnold’s 14 ‘exceptional’ $N=2$ superconformal gauge theories*, JHEP **10** (2011) 099, arXiv:1107.5747 [hep-th].
- (67) Murad Alim, Sergio Cecotti, Clay Córdova, Sam Espahbodi, Ashwin Rastogi, and Cumrun Vafa, *BPS quivers and spectra of complete $\mathcal{N} = 2$ Quantum Field Theories*, arXiv: 1109.4941 [hep-th].
- (68) Sergio Cecotti, Clay Córdova, and Cumrun Vafa, *Braids, Walls, and Mirrors*, arXiv:1110.2115 [hep-th].
- (69) Murad Alim, Sergio Cecotti, Clay Córdova, Sam Espahbodi, Ashwin Rastogi, and Cumrun Vafa, *$N=2$ Quantum Field Theories and their BPS Quivers*, arXiv: 1112.3984 [hep-th].
- (70) Sergio Cecotti, *Categorical Tinkertoys for $N=2$ Gauge Theories*, arXiv: 1203.6734 [hep-th].

- (71) Sergio Cecotti and Michele Del Zotto, *Half-Hypers and Quivers*, JHEP **09** (2012) 135, arXiv: 1207.2275 [hep-th].
- (72) Sergio Cecotti and Michele Del Zotto, *4d $\mathcal{N} = 2$ Gauge Theories and Quivers: the Non-Simply Laced Case*, JHEP **10** (2012) 190, arXiv: 1207.7205 [hep-th].
- (73) Sergio Cecotti, *$\mathcal{N} = 2$ SUSY and Representation Theory: An Introduction*, Proceedings of the *7th International Conference on Mathematical Methods in Physics*, CBPF, Rio de Janeiro, April 16–20 1012. To appear in the PoS sector of JHEP.
- (74) Sergio Cecotti and Michele Del Zotto, *Infinitely many $\mathcal{N} = 2$ SCFT with ADE flavor symmetries*, arXiv: 1210.2886 [hep-th].