Curriculum Vitae
PEI-MING HO 賀培銘

Phone: (02) 3366-5192, Fax: (02) 2363-9984, E-mail: pmho@phys.ntu.edu.tw

個人資料

生日: 1967年8月1日   出生地: 台灣
性別: 男   已婚

研究領域

超弦理論, 量子場論, 物理數學 .

學歷

fall 91 - spring 96   **University of California at Berkeley**, Berkeley, CA.
物理博士, May 1996.
Advisor: Prof. Bruno Zumino.

fall 85 - spring 89   **台灣大學**
電機學士.

研究經歷

fall 98 - present   **台灣大學** .
國家理論物理中心北區物理組主任 (Dec. 2010 - Dec. 2013).
臺大理論中心主任 (Dec. 2010 - Dec. 2013).
co-PI of CASTS（教育部五年五百億計畫）
教授 (2004 - present).
副教授 (2001 - 2004).
助理教授 (1998 - 2001).
co-PI of CosPA (Cosmology and Particle Astrophysics)

Jul. 03 - Jan. 04   **Harvard University**, Cambridge, MA.
訪問學者.

fall 96 - summer 98   **University of Utah**, Salt Lake City, UT.
Research Group of Professor Yong-Shi Wu.
博士後研究員.

榮譽及得獎記錄

台灣大學

2013	*102*年度校教學優良教師
2013	中華民國物理學會優良論文獎優等獎
2011	國科會優秀年輕學者研究計畫 *(2011/08/01 2015/07/31)*
2011	海外華人物理學會亞洲成就獎
2010	*99*年度國科會傑出研究獎
2008	*97*年度校教學傑出教師
2007	*96*年度校教學優良教師
2005	第*43*屆十大傑出青年
2004	*93*年度中華民國物理學會會士
2003	*92*年度國科會傑出研究獎
2002	*91*年度吳大猷紀念獎
2001	*90*年度校教學傑出教師
2001	中研院年輕學者研究著作獎
2000	*89*年度理學院青年學人獎
2000	*89*年度校教學優良教師
2001 - present	國科會研究獎勵
1999 - 2001	國科會甲種獎

.

University of Utah, Salt Lake City, UT.

Nov.-Dec. 96	Rosenbaum Fellowship (Newton Institute for Mathematical Sciences).

University of Calfornia at Berkeley, Berkeley, CA.

fall 94 - spring 95	The Berkeley Fellowship for Graduate Study.
fall 93 - spring 94	Victor F. Lenzen Memorial Scholarship.
fall 91 - spring 93	The Berkeley Fellowship for Graduate Study.

台灣大學

June 89	電機系第一名畢業.

學術著作

[1] P. M. Ho, "Generalized Yang-Mills Theory and Gravity," [arXiv:1501.05378 [hep-th]].

[2] P. M. Ho and Y. Matsuo, "Aspects of Effective Theory for Multiple M5-Branes Compactified On Circle," JHEP **1412**, 154 (2014) [arXiv:1409.4060 [hep-th]].

[3] P. -M. Ho, "Gauge Symmetries from Nambu-Poisson Brackets," Universe **1**, no. 4, 46 (2013).

[4] P. -M. Ho and C. -T. Ma, "S-Duality for D3-Brane in NS-NS and R-R Backgrounds," [arXiv:1311.3393 [hep-th]].

[5] W. -M. Chen, P. -M. Ho, H. -c. Kao, F. S. Khoo and Y. Matsuo, "Partition function of a chiral boson on a 2-torus from the Floreanini–Jackiw Lagrangian," *PTEP* **3**, 033B02 (2014) [arXiv:1307.2172 [hep-th]].

[6] P. -M. Ho and C. -T. Ma, "Effective Action for Dp-Brane in Large RR (p-1)-Form Background," *JHEP* **1305**, 056 (2013) [arXiv:1302.6919 [hep-th]].

[7] P. -M. Ho and Y. Matsuo, "Note on non-Abelian two-form gauge fields," *JHEP* **1209**, 075 (2012) [arXiv:1206.5643 [hep-th]].

[8] P. -M. Ho, C. -T. Ma and C. -H. Yeh, "BPS States on M5-brane in Large C-field Background," *JHEP* **1208**, 076 (2012) [arXiv:1206.1467 [hep-th]].

[9] P. -M. Ho, K. -W. Huang and Y. Matsuo, "A Non-Abelian Self-Dual Gauge Theory in 5+1 Dimensions," *JHEP* **1107**, 021 (2011) [arXiv:1104.4040 [hep-th]].

[10] P. M. Ho and C. H. Yeh, "D-brane in R-R Field Background," *JHEP* **1103**, 143 (2011) arXiv:1101.4054 [hep-th].

[11] C. S. Chu and P. M. Ho, "D1-brane in Constant R-R 3-form Flux and Nambu Dynamics in String Theory," *JHEP* **1102**, 020 (2011) [arXiv:1011.3765 [hep-th]].

[12] P. -M. Ho and X. -Y. Lin, "A UV completion of scalar electrodynamics," Eur. Phys. J. C **71**, 1562 (2011) [arXiv:1010.6245 [hep-th]].

[13] C. H. Chen, K. Furuuchi, P. M. Ho and T. Takimi, "More on the Nambu-Poisson M5-brane Theory: Scaling limit, background independence and an all order solution to the Seiberg-Witten map," *JHEP* **1010**, 100 (2010) [arXiv:1006.5291 [hep-th]].

[14] C. H. Chen, P. M. Ho and T. Takimi, "A No-Go Theorem for M5-brane Theory," *JHEP* **1003**, 104 (2010) [arXiv:1001.3244 [hep-th]].

[15] W. M. Chen and P. M. Ho, "Lagrangian Formulations of Self-dual Gauge Theories in Diverse Dimensions," *Nucl. Phys. B* **837**, 1 (2010) [arXiv:1001.3608 [hep-th]].

[16] P. M. Ho, "A Concise Review on M5-brane in Large C-Field Background," *Chinese Journal of Physics* **48**, 1 (2010) [arXiv:0912.0445 [hep-th]].

[17] P. M. Ho, "Nambu Bracket for M Theory," *Nucl. Phys. A* **844**, 95C (2010) [arXiv:0912.0055 [hep-th]].

[18] P. M. Ho and X. Y. Lin, "A UV completion of scalar field theory in arbitrary even dimensions," *JHEP* **1001**, 032 (2010) [arXiv:0910.3287 [hep-th]].

[19] P. M. Ho, Y. Matsuo and S. Shiba, "Lorentzian Lie (3-)algebra and toroidal compactification of M/string theory," *JHEP* **0903**, 045 (2009) [arXiv:0901.2003 [hep-th]].

[20] C. S. Chu and P. M. Ho, "Spacetime singularity and AdS/CFT for time dependent background," *Prog. Theor. Phys. Suppl.* **171**, 133 (2007).-

[21] C. S. Chu, P. M. Ho, Y. Matsuo and S. Shiba, "Truncated Nambu-Poisson Bracket and Entropy Formula for Multiple Membranes," *JHEP* **0808**, 076 (2008) [arXiv:0807.0812 [hep-th]].

[22] P. M. Ho, Y. Imamura, Y. Matsuo and S. Shiba, "M5-brane in three-form flux and multiple M2-branes," *JHEP* **0808**, 014 (2008) [arXiv:0805.2898 [hep-th]].

[23] P. M. Ho, Y. Imamura and Y. Matsuo, "M2 to D2 revisited," *JHEP* **0807**, 003 (2008) [arXiv:0805.1202 [hep-th]].

[24] P. M. Ho and Y. Matsuo, "M5 from M2," *JHEP* **0806**, 105 (2008) [arXiv:0804.3629 [hep-th]].

[25] P. M. Ho, R. C. Hou and Y. Matsuo, "Lie 3-Algebra and Multiple M2-branes," *JHEP* **0806**, 020 (2008) [arXiv:0804.2110 [hep-th]].

[26] T. C. Cheng, P. M. Ho and T. K. Lee, "Nonlocal Particles as Strings," *J.Phys.* **A42**: 055202 (2009) [arXiv:0802.1632 [hep-th]].

[27] P. M. Ho, "From B To C," *AAPPS Bull.* **17**, 22 (2007).

[28] P. M. Ho and S. Y. Shih, "Discrete States in Light-Like Linear Dilaton Background," *JHEP* **0801**, 054 (2008) arXiv:0711.2792 [hep-th].

[29] C. S. Chu and P. M. Ho, "Time-dependent AdS/CFT Duality II: Holographic Reconstruction of Bulk Metric and Possible Resolution of Singularity," *JHEP* **0802**, 058 (2008) [arXiv:0710.2640 [hep-th]].

[30] P. M. Ho and Y. Matsuo, "**A toy model of open membrane field theory in constant 3-form flux**," *Gen. Rel. Grav.* **39**, 913 (2007) [hep-th/0701130].

[31] C. M. Chen, P. M. Ho, I. P. Neupane, N. Ohta and J. E. Wang, "**Addendum to 'Hyperbolic space cosmologies'**," *JHEP* **0611**, 044 (2006) [hep-th/0609043].

[32] P. M. Ho and X. Y. Lin, "Linear relations among 4-point functions in the high energy limit of string theory," *Phys. Rev.* **D73**, 126007 (2006) [hep-th/0604026].

[33] P. M. Ho, "**String theory as a generalization of gauge symmetry**," *in *Hsu, Jong-Ping (ed.) et al.: 100 years of gravity and accelerated frames* 562-568*

[34] C. S. Chu and P. M. Ho, "**Time-dependent AdS/CFT duality and null singularity**," *JHEP* **0604**, 013 (2006) [hep-th/0602054].

[35] C. T. Chan, P. M. Ho, J. C. Lee, S. Teraguchi and Y. Yang, "**Comments on the high energy limit of bosonic open string theory**," *Nucl. Phys.* **B749**, 266 (2006) [hep-th/0509009].

[36] C. T. Chan, P. M. Ho, J. C. Lee, S. Teraguchi and Y. Yang, "**High-energy zero-norm states and symmetries of string theory**," *Phys. Rev. Lett.* **96**, 171601 (2006) [hep-th/0505035].

[37] C. T. Chan, P. M. Ho, J. C. Lee, S. Teraguchi and Y. Yang, "**Solving all 4-point correlation functions for bosonic open string theory in the high energy limit**," *Nucl. Phys.* **B725**, 352 (2005) [hep-th/0504138].

[38] K. Hashimoto, P. M. Ho and J. E. Wang, "**Birth of closed strings and death of open strings during tachyon condensation**," *Mod. Phys. Lett.* **A20**, 79 (2005) [hep-th/0411012].

[39] P. M. Ho and Y. Y. Tian, "**UV-finite scalar field theory with unitarity**," *JHEP* **0501**, 026 (2005) [hep-th/0410248].

[40] C. T. Chan, P. M. Ho and J. C. Lee, "**Ward identities and high-energy scattering amplitudes in string theory**," *Nucl. Phys.* **B708**, 99 (2005) [hep-th/0410194].

[41] P. M. Ho, "**Isometry of AdS(2) and the c = 1 matrix model**," *JHEP* **0405**, 008 (2004) [hep-th/0401167].

[42] R. Brandenberger, P. M. Ho and H. c. Kao, "**Large N cosmology**," *JCAP* **0411**, 011 (2004) [hep-th/0312288].

[43] P. M. Ho, "**Regularization of Newton constant, trans-Planckian dispersion relation, and symmetry of particle spectrum**," *Class. Quant. Grav.* **21**, 2641 (2004) [hep-th/0308103].

[44] Chiang-Mei Chen, Pei-Ming Ho, Ishwaree P. Neupane, Nobuyoshi Ohta, John E. Wang, "**Hyperbolic space cosmologies**," *JHEP* **0310**: 058 (2003) [hep-th/0306291].

[45] C. M. Chen, P. M. Ho, I. P. Neupane and J. E. Wang, "**A note on acceleration from product space compactification**," *JHEP* **0307**: 017 (2003) [hep-th/0304177].

[46] K. Hashimoto, P. M. Ho, S. Nagaoka and J. E. Wang, "**Time evolution via S-branes**," *Phys. Rev.* **D68**: 026007 (2003) [hep-th/0303172].

[47] K. Hashimoto, P.-M. Ho, J. E. Wang, "**S-Brane actions**," *Phys. Rev. Lett.* **90**: 141601 (2003) [hep-th/0211090].

[48] P.-M. Ho, "**Virasoro algebra for particles with higher derivative interactions**," *Phys. Lett.* **B558**, 238 (2003) [hep-th/0208182].

[49] T.-C. Cheng, P.-M. Ho and M.-C. Yeh, "**Perturbative approach to higher derivative theories with fermions**," *Phys. Rev.* **D66**: 085015 (2002) [hep-th/0206077].

[50] C.-S. Chu, P.-M. Ho and F.-L. Lin, "**Cubic string field theory in pp-wave background and background independent Moyal structure**," *JHEP* **0209**: 003 (2002) [hep-th/0205218].

[51] C.-S. Chu and P.-M. Ho, "**Noncommutative D-brane and open string in pp-wave background with B-field**," *Nucl. Phys.* **B636** (2002) 141 [hep-th/0203186].

[52] R. Brandenberger and P.-M. Ho, "**Noncommutative spacetime, stringy spacetime uncertainty principle, and density fluctuations**," *Phys. Rev.* **D66**: 023517 (2002) [hep-th/0203119].

[53] P.-M. Ho and S. Ramgoolam, "**Higher dimensional geometries from matrix brane constructions**," *Nucl. Phys.* **B627** (2002) 266-288 [hep-th/0111278].

[54] T.-C. Cheng, P.-M. Ho and M.-C. Yeh, "**Perturbative approach to higher derivative and nonlocal theories**," *Nucl. Phys.* **B625** (2002) 151-165 [hep-th/0111160].

[55] P.-M. Ho and H.-C. Kao, "**Noncommutative quantum mechanics from noncommutative quantum field theory**," *Phys. Rev. Lett.* **88**: 151602 (2002) [hep-th/0110191].

[56] P.-M. Ho, S.-P. Miao: "**Noncommutative differential calculus for D-brane in nonconstant B field background**," *Phys. Rev.* **D64**: 126002 (2001) [hep-th/0105191].

[57] P.-M. Ho: "**Making non-associative algebra associative**," *JHEP* **0111** (2001) 026 [hep-th/0103024].

[58] J.-A. Gu, P.-M. Ho, S. Ramgoolam: "**Stringy space-time uncertainty as an alternative to inflation**," [hep-th/0101058].

[59] P.-M. Ho: "**Fuzzy sphere from matrix model**," *JHEP* **0012** (2000) 014 [hep-th/0010165].

[60] P.-M. Ho, M. Li: "**Large N expansion from fuzzy** AdS_2," *Nucl. Phys.* **B590** (2000) 198-212 [hep-th/0005268].

[61] P.-M. Ho, Y.-T. Yeh: "**Noncommutative D-brane in nonconstant NS-NS B-field background**," *Phys. Rev. Lett.* **85** (2000) 5523-5526 [hep-th/0005159].

[62] P.-M. Ho, M. Li: "**Fuzzy spheres in AdS/CFT correspondence and holography from noncommutativity**," *Nucl. Phys.* **B596**, 259 (2001) [hep-th/0004072].

[63] P.-M. Ho: "**Twisted bundle on noncommutative space and** $U(1)$ **instanton**," Lecture given at *APCTP-KIAS winter school on Strings and D-Branes 2000*, Seoul, Korea, 21-25 Feb 2000 [hep-th/0003012].

[64] C.-S. Chu, P.-M. Ho, M. Li: "**Matrix theory in a constant** C **field background**," *Nucl. Phys.* **B574** (2000) 275-287 [hep-th/9911153].

[65] P.-M. Ho, S. Ramgoolam, R. Tatar: "**Quantum space-times and finite** N **effects in 4-D super Yang-Mills theories**," *Nucl. Phys.* **B573** (2000) 364-376 [hep-th/9907145].

[66] C.-S. Chu, P.-M. Ho: "**Constrained quantization of open string in background B field and noncommutative D-brane**," *Nucl. Phys.* **B568** (2000) 447-456 [hep-th/9906192].

[67] C.-S. Chu, P.-M. Ho, Y.-C. Kao: "**Worldvolume uncertainty relations for D-branes**," *Phys. Rev.* **D60** (1999) 126003 [hep-th/9904133].

[68] C.-S. Chu, P.-M. Ho: "**Noncommutative open string and D-brane**," *Nucl. Phys.* **B550** (1999) 151-168 [hep-th/9812219].

[69] P.-M. Ho, Y.-S. Wu: "**Matrix compactification on orientifolds**," *Phys. Rev.* **D60** (1999) 026002 [hep-th/9812143].

[70] C.-S. Chu, P.-M. Ho, Y.-Y. Wu: "**D instanton in AdS$_5$ and instanton in SYM$_4$,**" *Nucl. Phys.* **B541** (1998) 179-194 [hep-th/9806103].

[71] P.-M. Ho: "**Twisted bundles on quantum Torus and BPS states in matrix theory,**" *Phys. Lett.* **B434** (1998) 41-47 [hep-th/9803166].

[72] P.-M. Ho, Y.-S. Wu: "**Noncommutative gauge theories in matrix theory,**" *Phys. Rev.* **D58** (1998) 066003 [hep-th/9801147].

[73] P.-M. Ho, Y.-Y. Wu, Y.-S. Wu: "**Towards a noncommutative geometric approach to matrix compactification,**" *Phys. Rev.* **D58** (1998) 026006 [hep-th/9712201].

[74] P.-M. Ho, Y.-S. Wu: "**Brane creation in M(atrix) theory,**" *Phys. Lett.* **B420** (1998) 43-50 [hep-th/9708137].

[75] P.-M. Ho, M. Li, Y.-S. Wu: "*p-p′* **strings in M(atrix) theory,**" *Nucl. Phys.* **B525** (1998) 146-162 [hep-th/9706073].

[76] P.-M. Ho, Y.-S. Wu: "**Type II B string/M theory duality and longitudinal membranes in M(atrix) theory,**" *Phys. Rev.* **D57** (1998) 2571-2579 [hep-th/9703016].

[77] P.-M. Ho, Y.-S. Wu: "**Noncommutative geometry and D-branes,**" *Phys. Lett.* **B398** (1997) 52-60 [hep-th/9611233].

[78] C.-S. Chu, P.-M. Ho: "**Poisson algebra of differential forms,**" *Int. J. Mod. Phys.* **A12** (1997) 5573-5587 [q-alg/9612031].

[79] C.-S. Chu, P.-M. Ho, B. Zumino: "**Some complex quantum manifolds and their geometry,**" proceedings on "Quantum Fields and Quantum Space Time", NATO Advanced Study Institute, Institut D'Etudes Scientifiques De Cargèse (1996) [hep-th/9608188].

[80] P.-M. Ho: "**Geometrical aspects of quantum spaces,**" Ph.D. Thesis, LBL-38602, UCB-PTH-96/15, Berkeley (1996).

[81] C.-S. Chu, P.-M. Ho, B. Zumino: "**Non-Abelian anomalies and effective actions for a homogeneous space** G/H," *Nucl. Phys.* **B 475** (1996) 484-504 [hep-th/9602093].

[82] P.-M. Ho: "**Riemannian geometry on quantum spaces,**" *Int. J. Mod. Phys.* **A 12** (1997) 923-943 [q-alg/9505021]

[83] C.-S. Chu, P.-M. Ho, B. Zumino: "**Geometry of the quantum complex projective space** $CP_q(N)$," *Z. Phys.* **C 72** (1996) 163 [q-alg/9510021].

[84] C.-S. Chu, P.-M. Ho, B. Zumino: "**The braided quantum 2-sphere,**" *Mod. Phys. Lett.* **A 11** (1996) 307 [q-alg/9507013].

[85] C.-S. Chu, P.-M. Ho, B. Zumino: "**The quantum 2-Sphere as a complex quantum manifold,**" *Z. Phys.* **C 70** (1996) 339 [q-alg/9504003].

[86] C.-S. Chu, P.-M. Ho, H. Steinacker: "**q-deformed Dirac monopole with arbitrary charge,**" *Z. Phys.* **C 71** (1996) 171 [hep-th/9404023].