Stanford



Lance Dixon

Professor of Particle Physics and Astrophysics, Emeritus

Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Professor Emeritus, Particle Physics and Astrophysics

ADMINISTRATIVE APPOINTMENTS

- Interim Chair, SLAC PPA Faculty, (2024-2024)
- Chair, SLAC PPA Faculty, (2011-2014)

HONORS AND AWARDS

- Member, American Academy of Arts and Sciences (2025)
- Galileo Galilei Medal, National Nuclear Physics Agency, Italy (INFN) (2023)
- Member, National Academy of Sciences (2022)
- Schrodinger Professor, ETH Zurich and University of Zurich (2019)
- Humboldt Research Award, Alexander von Humboldt Foundation (2017)
- Distinguished Visitor Research Chair, Perimeter Institute (2014-2020)
- J.J. Sakurai Prize, American Physical Society (2014)
- Outstanding Referee, American Physical Society (2008)
- Fellow, American Physical Society (1995)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Scientific Advisory Board, Kavli Institute for Theoretical Physics (2017 - 2021)
- Chair of Organizing Committee, Amplitudes 2018 Conference at SLAC (2017 - 2018)
- Committee of Visitors, US Department of Energy (2016 - 2016)
- Chair, Scientific Advisory Board, Theoretical Advanced Study Institute, Boulder, CO (2015 - 2021)
- Advisory Committee, Galileo Galilei Institute, Florence (2015 - 2018)
- Co-organizer, Bay Area Particle Theory Seminar (2013 - present)
- Scientific Advisory Board, Max Planck Institute for Physics, Munich (2012 - 2021)
- International Advisory Committee, Higgs Centre for Theoretical Physics, U. Edinburgh (2012 - 2018)
- Scientific Advisory Committee, Munich Institute for Astro- and Particle Physics (2012 - 2017)
- Steering Committee, Institute for Particle Physics Phenomenology, Durham, UK (2010 - 2015)
- High Energy Physics Advisory Panel, US Government (2008 - 2011)

- Editorial Board, Journal of High Energy Physics (2007 - present)
- Executive Committee, SLAC Users' Organization (2004 - 2007)
- General member, Aspen Center for Physics (1993 - 2003)

PROFESSIONAL EDUCATION

- Ph.D., Princeton University , Physics (1986)
- B.S., California Institute of Technology , Physics and Applied Mathematics (1982)

LINKS

- My Personal Site: https://s3df.slac.stanford.edu/people/lance/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am interested in novel descriptions of how relativistic particles scattering, and how those insights can be applied to a variety of problems. Applications include precision QCD for the Large Hadron Collider; scattering in "toy models" such as N=4 super-Yang-Mills theory where an all orders solution seems feasible in the planar limit; the ultraviolet structure of quantum gravity; and problems in classical gravity such as gravitational radiation from compact binary inspiral.

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Zach Hulcher, Andrew McEntaggart, Adi Suresh

Postdoctoral Faculty Sponsor

Sumit Banik, Julie Pages, Yoann Sohnle Moreno

Publications

PUBLICATIONS

- **Multi-loop negative geometries** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Oktem, U., Paranjape, S., Trnka, J., Xu, Y., Zhang, S.
  2026
- **A two-loop four-point form factor at function level (Volume 2025, article number 12, (2025))** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Xin, S.
  2026
- **Antipodal self-duality of square fishnet graphs** *PHYSICAL REVIEW D*
  Dixon, L. J., Duhr, C.
  2025; 111 (10)
- **Recurrent features of amplitudes in planar N=4 super Yang-Mills theory** *JOURNAL OF HIGH ENERGY PHYSICS*
  Cai, T., Charton, F., Cranmer, K., Dixon, L. J., Merz, G. W., Wilhelm, M.
  2025
- **Rational QCD loop amplitudes and quantum theories on twistor space** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Morales, A.
  2025

- **The three-point form factor of Tr φ³ to six loops** *JOURNAL OF HIGH ENERGY PHYSICS*
  Basso, B., Dixon, L. J., Tumanov, A. G.
  2025
- **A two-loop four-point form factor at function level** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Xin, S.
  2025
- **Transforming the bootstrap: using transformers to compute scattering amplitudes in planar N=4 super Yang-Mills theory** *MACHINE LEARNING-SCIENCE AND TECHNOLOGY*
  Cai, T., Merz, G. W., Charton, F., Nolte, N., Wilhelm, M., Cranmer, K., Dixon, L. J.
  2024; 5 (3)
- **On gauge amplitudes first appearing at two loops** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Morales, A.
  2024
- **Soft gluon emission at two loops in full color (vol 2020, 135, 2020)** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Herrmann, E., Yan, K., Zhu, H.
  2024
- **An eight loop amplitude via antipodal duality** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Liu, Y.
  2023
- **Antipodal Self-Duality for a Four-Particle Form Factor.** *Physical review letters*
  Dixon, L. J., Gürdoğan, Ö., Liu, Y. T., McLeod, A. J., Wilhelm, M.
  2023; 130 (11): 111601
- **All-Orders Quadratic-Logarithmic Behavior for Amplitudes.** *Physical review letters*
  Basso, B., Dixon, L. J., Liu, Y. T., Papathanasiou, G.
  2023; 130 (11): 111602
- **The SAGEX review on scattering amplitudes*** *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*
  Travaglini, G., Brandhuber, A., Dorey, P., McLoughlin, T., Abreu, S., Bern, Z., Bjerrum-Bohr, N. J., Bluemlein, J., Britto, R., Carrasco, J. M., Chicherin, D., Chiodaroli, M., Damgaard, et al
  2022; 55 (44)
- **The SAGEX review on scattering amplitudes Chapter 15: The multi-Regge limit** *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*
  Del Duca, V., Dixon, L. J.
  2022; 55 (44)
- **One-loop central-emission vertex for two gluons in N=4 super Yang-Mills theory** *JOURNAL OF HIGH ENERGY PHYSICS*
  Byrne, E. P., Del Duca, V., Dixon, L. J., Gardi, E., Smillie, J. M.
  2022
- **Bootstrapping a stress-tensor form factor through eight loops** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Gurdogan, O., McLeod, A. J., Wilhelm, M.
  2022
- **Folding Amplitudes into Form Factors: An Antipodal Duality** *PHYSICAL REVIEW LETTERS*
  Dixon, L. J., Gurdogan, O., McLeod, A. J., Wilhelm, M.
  2022; 128 (11): 111602
- **Heptagon functions and seven-gluon amplitudes in multi-Regge kinematics** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Liu, Y., Miczajka, J.
  2021
- **Fishnet four-point integrals: integrable representations and thermodynamic limits** *JOURNAL OF HIGH ENERGY PHYSICS*

Basso, B., Dixon, L. J., Kosower, D. A., Krajenbrink, A., Zhong, D.
2021

- **A three-point form factor through five loops** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., McLeod, A. J., Wilhelm, M.
  2021
- **Lifting heptagon symbols to functions** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Liu, Y.
  2020
- **Soft gluon emission at two loops in full color** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Herrmann, E., Yan, K., Zhu, H.
  2020
- **Origin of the Six-Gluon Amplitude in Planar N=4 Supersymmetric Yang-Mills Theory.** *Physical review letters*
  Basso, B., Dixon, L. J., Papathanasiou, G.
  2020; 124 (16): 161603
- **The cosmic Galois group and extended Steinmann relations for planar N=4 SYM amplitudes** *JOURNAL OF HIGH ENERGY PHYSICS*
  Caron-Huot, S., Dixon, L. J., Dulat, F., von Hippel, M., McLeod, A. J., Papathanasiou, G.
  2019
- **Six-Gluon amplitudes in planar N=4 super-Yang-Mills theory at six and seven loops** *JOURNAL OF HIGH ENERGY PHYSICS*
  Caron-Huot, S., Dixon, L. J., Dulat, F., von Hippel, M., McLeod, A. J., Papathanasiou, G.
  2019
- **Collinear limit of the energy-energy correlator** *PHYSICAL REVIEW D*
  Dixon, L. J., Moult, I., Zhu, H.
  2019; 100 (1)
- **Two-Loop Five-Point Amplitude in N=4 Super-Yang-Mills Theory** *PHYSICAL REVIEW LETTERS*
  Abreu, S., Dixon, L. J., Herrmann, E., Page, B., Zeng, M.
  2019; 122 (12): 121603
- **The two-loop five-point amplitude in N=8 supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*
  Abreu, S., Dixon, L. J., Herrmann, E., Page, B., Zeng, M.
  2019
- **The double pentaladder integral to all orders** *JOURNAL OF HIGH ENERGY PHYSICS*
  Caron-Huot, S., Dixon, L. J., von Hippal, M., McLeod, A. J., Papathanasiou, G.
  2018
- **Analytical Computation of Energy-Energy Correlation at Next-to-Leading Order in QCD** *PHYSICAL REVIEW LETTERS*
  Dixon, L. J., Luo, M., Shtabovenko, V., Yang, T., Zhu, H.
  2018; 120 (10): 102001
- **The principle of maximal transcendentality and the four-loop collinear anomalous dimension** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J.
  2018
- **Gluing Ladder Feynman Diagrams into Fishnets.** *Physical review letters*
  Basso, B., Dixon, L. J.
  2017; 119 (7): 071601
- **Heptagons from the Steinmann cluster bootstrap** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Drummond, J., Harrington, T., McLeod, A. J., Papathanasiou, G., Spradlin, M.
  2017
- **Two-loop renormalization of quantum gravity simplified** *PHYSICAL REVIEW D*
  Bern, Z., Chi, H., Dixon, L., Edison, A.

2017; 95 (4)

- **Multi-loop positivity of the planar N=4 SYM six-point amplitude** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., von Hippel, M., McLeod, A. J., Trnka, J.
  2017
- **Bootstrapping a Five-Loop Amplitude Using Steinmann Relations** *PHYSICAL REVIEW LETTERS*
  Caron-Huot, S., Dixon, L. J., McLeod, A., von Hippel, M.
  2016; 117 (24)
- **The four-loop six-gluon NMHV ratio function** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., von Hippel, M., McLeod, A. J.
  2016
- **Evanescent Effects can Alter Ultraviolet Divergences in Quantum Gravity without Physical Consequences.** *Physical review letters*
  Bern, Z., Cheung, C., Chi, H., Davies, S., Dixon, L., Nohle, J.
  2015; 115 (21): 211301-?
- **Evanescent Effects can Alter Ultraviolet Divergences in Quantum Gravity without Physical Consequences.** *Physical review letters*
  Bern, Z., Cheung, C., Chi, H. H., Davies, S., Dixon, L., Nohle, J.
  2015; 115 (21): 211301
- **Interference effects in the H(->gamma gamma)+2 jets channel at the LHC** *PHYSICAL REVIEW D*
  Coradeschi, F., de Florian, D., Dixon, L. J., Fidanza, N., Hoeche, S., Ita, H., Li, Y., Mazzitelli, J.
  2015; 92 (1)
- **Extrapolating W-associated jet-production ratios at the LHC** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Febres Cordero, F., Hoeche, S., Ita, H., Kosower, D. A., MAITRE, D.
  2015; 92 (1)
- **Bootstrapping an NMHV amplitude through three loops** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., von Hippel, M.
  2014
- **Next-to-leading order gamma gamma+2-jet production at the LHC** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Cordero, F. F., Hoeche, S., Ita, H., Kosower, D. A., Lo Presti, N. A., MAITRE, D.
  2014; 90 (5)
- **The four-loop remainder function and multi-Regge behavior at NNLLA in planar N=4 super-Yang-Mills theory** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Drummond, J. M., Duhr, C., Pennington, J.
  2014
- **Ntuples for NLO events at hadron colliders** *COMPUTER PHYSICS COMMUNICATIONS*
  Bern, Z., Dixon, L. J., Febres Cordero, F., Hoeche, S., Ita, H., Kosower, D. A., Maitre, D.
  2014; 185 (5): 1443-1460
- **The BFKL equation, Mueller-Navelet jets and single-valued harmonic polylogarithms** *JOURNAL OF HIGH ENERGY PHYSICS*
  Del Duca, V., Dixon, L. J., Duhr, C., Pennington, J.
  2014
- **Hexagon functions and the three-loop remainder function** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Drummond, J. M., von Hippel, M., Pennington, J.
  2013
- **Bounding the Higgs Boson Width through Interferometry** *PHYSICAL REVIEW LETTERS*
  Dixon, L. J., Li, Y.
  2013; 111 (11)
- **Next-to-leading order W+5-jet production at the LHC** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Cordero, F. F., Hoeche, S., Ita, H., Kosower, D. A., MAITRE, D., Ozeren, K. J.

2013; 88 (1)

- **Missing energy and jets for supersymmetry searches** *PHYSICAL REVIEW D*
  Bern, Z., Diana, G., Dixon, L. J., Febres Cordero, F., Hoeche, S., Ita, H., Kosower, D. A., MAITRE, D., Ozeren, K. J.
  2013; 87 (3)
- **D = 5 maximally supersymmetric Yang-Mills theory diverges at six loops** *PHYSICAL REVIEW D*
  Bern, Z., Carrasco, J. J., Dixon, L. J., Douglas, M. R., von Hippel, M., Johansson, H.
  2013; 87 (2)
- **Single-valued harmonic polylogarithms and the multi-Regge limit** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Duhr, C., Pennington, J.
  2012
- **Color-kinematics duality and double-copy construction for amplitudes from higher-dimension operators** *JOURNAL OF HIGH ENERGY PHYSICS*
  Broedel, J., Dixon, L. J.
  2012
- **Four-Jet Production at the Large Hadron Collider at Next-to-Leading Order in QCD** *PHYSICAL REVIEW LETTERS*
  Bern, Z., Diana, G., Dixon, L. J., Febres Cordero, F., Hoeche, S., Kosower, D. A., Ita, H., MAITRE, D., Ozeren, K.
  2012; 109 (4)
- **Simplifying multiloop integrands and ultraviolet divergences of gauge theory and gravity amplitudes** *PHYSICAL REVIEW D*
  Bern, Z., Carrasco, J. J., Dixon, L. J., Johansson, H., Roiban, R.
  2012; 85 (10)
- **LOOPS, TREES AND THE SEARCH FOR NEW PHYSICS** *SCIENTIFIC AMERICAN*
  Bern, Z., Dixon, L. J., Kosower, D. A.
  2012; 306 (5): 34-41
- **Precise predictions for Z-boson +4 jet production at hadron colliders** *PHYSICAL REVIEW D*
  Ita, H., Bern, Z., Dixon, L. J., Febres Cordero, F., Kosower, D. A., MAITRE, D.
  2012; 85 (3)
- **Analytic result for the two-loop six-point NMHV amplitude in N=4 super Yang-Mills theory** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Drummond, J. M., Henn, J. M.
  2012
- **Driving missing data at next-to-leading order** *PHYSICAL REVIEW D*
  Bern, Z., Diana, G., Dixon, L. J., Febres Cordero, F., Hoeche, S., Ita, H., Kosower, D. A., MAITRE, D., Ozeren, K. J.
  2011; 84 (11)
- **N >= 4 supergravity amplitudes from gauge theory at two loops** *JOURNAL OF HIGH ENERGY PHYSICS*
  Boucher-Veronneau, C., Dixon, L. J.
  2011
- **Scattering amplitudes: the most perfect microscopic structures in the universe** *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*
  Dixon, L. J.
  2011; 44 (45)
- **Bootstrapping the three-loop hexagon** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Drummond, J. M., Henn, J. M.
  2011
- **The one-loop six-dimensional hexagon integral with three massive corners** *PHYSICAL REVIEW D*
  Del Duca, V., Dixon, L. J., Drummond, J. M., Duhr, C., Henn, J. M., Smirnov, V. A.
  2011; 84 (4)
- **Left-handed W bosons at the LHC** *PHYSICAL REVIEW D*

Bern, Z., Diana, G., Dixon, L. J., Febres Cordero, F., Forde, D., Gleisberg, T., Hoeche, S., Ita, H., Kosower, D. A., MAITRE, D., Ozeren, K.
2011; 84 (3)

- **Amplitudes and ultraviolet behavior of N=8 supergravity** *16th European Workshop on String Theory*
  Bern, Z., Carrasco, J. J., Dixon, L. J., Johansson, H., Roiban, R.
  WILEY-V C H VERLAG GMBH.2011: 561–78
- **The one-loop six-dimensional hexagon integral and its relation to MHV amplitudes in N=4 SYM** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Drummond, J. M., Henn, J. M.
  2011
- **Precise Predictions for W+4-Jet Production at the Large Hadron Collider** *PHYSICAL REVIEW LETTERS*
  Berger, C. F., Bern, Z., Dixon, L. J., Cordero, F. F., Forde, D., Gleisberg, T., Ita, H., Kosower, D. A., MAITRE, D.
  2011; 106 (9)
- **A tree-level amplitudes in massless QCD** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Henn, J. M., Plefka, J., Schuster, T.
  2011
- **Complete four-loop four-point amplitude in N=4 super-Yang-Mills theory** *PHYSICAL REVIEW D*
  Bern, Z., Carrasco, J. J., Dixon, L. J., Johansson, H., Roiban, R.
  2010; 82 (12)
- **Next-to-leading order QCD predictions for Z,gamma*+3-jet distributions at the Tevatron** *PHYSICAL REVIEW D*
  Berger, C. F., Bern, Z., Dixon, L. J., Febres Cordero, F., Forde, D., Gleisberg, T., Ita, H., Kosower, D. A., MAITRE, D.
  2010; 82 (7)
- **Vector Boson plus Jets with BLACKHAT and SHERPA** *10th DESY Workshop on Elementary Particle Theory*
  Berger, C. F., Bern, Z., Dixon, L. J., Cordero, F. F., Forde, D., Gleisberg, T., Ita, H., Kosower, D. A., MAITRE, D.
  ELSEVIER SCIENCE BV.2010: 92–97
- **R-4 counterterm and E-7(7) symmetry in maximal supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*
  Broedel, J., Dixon, L. J.
  2010
- **On soft singularities at three loops and beyond** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Gardi, E., Magnea, L.
  2010
- **Next-to-leading order QCD predictions for W+3-jet distributions at hadron colliders** *PHYSICAL REVIEW D*
  Berger, C. F., Bern, Z., Dixon, L. J., Cordero, F. F., Forde, D., Gleisberg, T., Ita, H., Kosower, D. A., MAITRE, D.
  2009; 80 (7)
- **Ultraviolet Behavior of N=8 Supergravity at Four Loops** *PHYSICAL REVIEW LETTERS*
  Bern, Z., Carrasco, J. J., Dixon, L. J., Johansson, H., Roiban, R.
  2009; 103 (8)
- **Analytic one-loop amplitudes for a Higgs boson plus four partons** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Sofianatos, Y.
  2009
- **Precise Predictions for W+3 Jet Production at Hadron Colliders** *PHYSICAL REVIEW LETTERS*
  Berger, C. F., Bern, Z., Dixon, L. J., Cordero, F. F., Forde, D., Gleisberg, T., Ita, H., Kosower, D. A., MAITRE, D.
  2009; 102 (22)
- **Matter dependence of the three-loop soft-anomalous-dimension matrix** *PHYSICAL REVIEW D*
  Dixon, L. J.
  2009; 79 (9)
- **Resonance-continuum interference in light Higgs boson production at a photon collider** *PHYSICAL REVIEW D*
  Dixon, L. J., Sofianatos, Y.

2009; 79 (3)

- **Manifest ultraviolet behavior for the three-loop four-point amplitude of N=8 supergravity** *PHYSICAL REVIEW D*
  Bern, Z., Carrasco, J. J., Dixon, L. J., Johansson, H., Roiban, R.
  2008; 78 (10)
- **One-Loop Calculations with BlackHat** *NUCLEAR PHYSICS B-PROCEEDINGS SUPPLEMENTS*
  Berger, C. F., Bern, Z., Dixon, L. J., Cordero, F. F., Forde, D., Ita, H., Kosower, D. A., MAITRE, D.
  2008; 183: 313-319
- **Two-loop six-gluon maximally helicity violating amplitude in maximally supersymmetric Yang-Mills theory** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Kosower, D. A., Roiban, R., Spradlin, M., Vergu, C., Volovich, A.
  2008; 78 (4)
- **Automated implementation of on-shell methods for one-loop amplitudes** *PHYSICAL REVIEW D*
  Berger, C. F., Bern, Z., Dixon, L. J., Cordero, F. F., Forde, D., Ita, H., Kosower, D. A., MAITRE, D.
  2008; 78 (3)
- **Universal structure of subleading infrared poles in gauge theory amplitudes** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Magnea, L., Sterman, G.
  2008
- **On-shell methods in perturbative QCD** *ANNALS OF PHYSICS*
  Bern, Z., Dixon, L. J., Kosower, D. A.
  2007; 322 (7): 1587-1634
- **Cancellations beyond finiteness in N=8 supergravity at three loops** *PHYSICAL REVIEW LETTERS*
  Bern, Z., Carrasco, J. J., Dixon, L. J., Johansson, H., Kosower, D. A., Roiban, R.
  2007; 98 (16)
- **Four-loop planar amplitude and cusp anomalous dimension in maximally supersymmetric Yang-Mills theory** *PHYSICAL REVIEW D*
  Bern, Z., Czakon, M., Dixon, L. J., Kosower, D. A., Smirnov, V. A.
  2007; 75 (8)
- **Is N=8 supergravity ultraviolet finite?** *PHYSICS LETTERS B*
  Bern, Z., Dixon, L. J., Roiban, R.
  2007; 644 (4): 265-271
- **All one-loop maximally helicity violating gluonic amplitudes in QCD** *PHYSICAL REVIEW D*
  Berger, C. F., Bern, Z., Dixon, L. J., Forde, D., Kosower, D. A.
  2007; 75 (1)
- **Recursive construction of Higgs plus multiparton loop amplitudes: The last of the "phi-nite" loop amplitudes** *PHYSICAL REVIEW D*
  Berger, C. F., Del Duca, V., Dixon, L. J.
  2006; 74 (9)
- **On-shell unitarity bootstrap for QCD amplitudes** *8th DESY Workshop on Elementary Particle Theory*
  Berger, C. F., Bern, Z., Dixon, L. J., Forde, D., Kosower, D. A.
  ELSEVIER SCIENCE BV.2006: 261–270
- **Two-loop soft anomalous dimension matrix and resummation at next-to-next-to-leading poles** *PHYSICAL REVIEW D*
  Aybat, S. M., Dixon, L. J., Sterman, G.
  2006; 74 (7)
- **Two-loop anomalous-dimension matrix for soft-gluon exchange** *PHYSICAL REVIEW LETTERS*
  Aybat, S. M., Dixon, L. J., Sterman, G.
  2006; 97 (7)
- **Bootstrapping one-loop QCD amplitudes with general helicities** *PHYSICAL REVIEW D*
  Berger, C. F., Bern, Z., Dixon, L. J., Forde, D., Kosower, D. A.

2006; 74 (3)

- **Bootstrapping multiparton loop amplitudes in QCD** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Kosower, D. A.
  2006; 73 (6)
- **Last of the finite loop amplitudes in QCD** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Kosower, D. A.
  2005; 72 (12)
- **Iteration of planar amplitudes in maximally supersymmetric Yang-Mills theory at three loops and beyond** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Smirnov, V. A.
  2005; 72 (8)
- **All next-to-maximally-helicity-violating one-loop gluon amplitudes in N=4 super-Yang-Mills theory** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Kosower, D. A.
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- **On-shell recurrence relations for one-loop QCD amplitudes** *PHYSICAL REVIEW D*
  Bern, Z., Dixon, L. J., Kosower, D. A.
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- **All non-maximally-helicity-violating one-loop seven-gluon amplitudes in N=4 super-Yang-Mills theory** *PHYSICAL REVIEW D*
  Bern, Z., Del Duca, V., Dixon, L. J., Kosower, D. A.
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- **N=1 supersymmetric one-loop amplitudes and the holomorphic anomaly of unitarity cuts** *PHYSICS LETTERS B*
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- **Recent developments in perturbative QCD** *13th International Workshop on Deep Inelastic Scattering (DIS 2005)*
  Dixon, L. J.
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- **MHV rules for Higgs plus multi-gluon amplitudes** *JOURNAL OF HIGH ENERGY PHYSICS*
  Dixon, L. J., Glover, E. W., Khoze, V. V.
  2004
- **N=4 Super-Yang-Mills theory, QCD and collider physics** *COMPTES RENDUS PHYSIQUE*
  Bern, Z., Dixon, L. J., Kosower, D. A.
  2004; 5 (9-10): 955-964
- **Two-loop splitting amplitudes** *NUCLEAR PHYSICS B-PROCEEDINGS SUPPLEMENTS*
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