Stanford

Tor Raubenheimer

Professor of Particle Physics and Astrophysics, Emeritus

Bio

ACADEMIC APPOINTMENTS

- Professor Emeritus, Particle Physics and Astrophysics

Publications

PUBLICATIONS

- **Two-stage reflective self-seeding scheme for high-repetition-rate X-ray free-electron lasers.** *Journal of synchrotron radiation*
  Zhou, G., Qu, Z., Ma, Y., Corbett, W. J., Jiao, Y., Li, H., Qin, W., Raubenheimer, T. O., Tsai, C. Y., Wang, J., Yang, C., Wu, J.
  2021; 28 (Pt 1): 44–51

- **Coherence time characterization method for hard X-ray free-electron lasers** *OPTICS EXPRESS*
  Zhou, G., Jiao, Y., Raubenheimer, T. O., Wang, J., Holman, A. J., Tsai, C., Wu, J. Y., Wu, W., Yang, C., Yoon, M., Wu, J.
  2020; 28 (8): 10928–38

- **Attosecond Coherence Time Characterization in Hard X-Ray Free-Electron Laser.** *Scientific reports*
  Zhou, G., Decker, F., Ding, Y., Jiao, Y., Lutman, A. A., Maxwell, T. J., Raubenheimer, T. O., Wang, J., Holman, A. J., Tsai, C., Wu, J. Y., Wu, W., Yang, et al
  2020; 10 (1): 5961

- **Fluid dynamics analysis of a gas attenuator for X-ray FELs under high-repetition-rate operation** *JOURNAL OF SYNCHROTRON RADIATION*
  Yang, B., Wu, J., Raubenheimer, T. O., Feng, Y.
  2017; 24: 547-559

- **Multi-dimensional optimization of a terawatt seeded tapered Free Electron Laser with a Multi-Objective Genetic Algorithm** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Wu, J., Hu, N., Setiawan, H., Huang, X., Raubenheimer, T. O., Jiao, Y., Yu, G., Mandlekar, A., Spampinati, S., Fang, K., Chu, C., Qiang, J.
  2017; 846: 56-63

- **Method to generate a pulse train of few-cycle coherent radiation** *PHYSICAL REVIEW ACCELERATORS AND BEAMS*
  Garcia, B., Hemsing, E., Raubenheimer, T., Campbell, L. T., McNeil, B. W.
  2016; 19 (9)

- **Staging optics considerations for a plasma wakefield acceleration linear collider** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Lindstrom, C. A., Adli, E., Allen, J. M., Delahaye, J. P., Hogan, M. J., Joshi, C., Muggli, P., Raubenheimer, T. O., Yakimenko, V.
  2016; 829: 224-228

- **Echo-enabled harmonics up to the 75th order from precisely tailored electron beams** *NATURE PHOTONICS*
  Hemsing, E., Dunning, M., Garcia, B., Hast, C., Raubenheimer, T., Stupakov, G., Xiang, D.
  2016; 10 (8): 512-?

- **Two-photon photoemission from a copper cathode in an X-band photoinjector** *PHYSICAL REVIEW ACCELERATORS AND BEAMS*
  Li, H., Limborg-Deprey, C., Adolphsen, C., McCormick, D., Dunning, M., Jobe, K., Raubenheimer, T., Vrielink, A., Vecchione, T., Wang, F., Weathersby, S.
  2016; 19 (2)

- **Filamentation effect in a gas attenuator for high-repetition-rate X-ray FELs** *JOURNAL OF SYNCHROTRON RADIATION*
  Feng, Y., Krzywinski, J., Schafer, D. W., Ortiz, E., Rowen, M., Raubenheimer, T. O.
  2016; 23: 21-28
- **Measurements and analysis of a high-brightness electron beam collimated in a magnetic bunch compressor** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Zhou, F., Bane, K., Ding, Y., Huang, Z., Loos, H., Raubenheimer, T.
  2015; 18 (5)
- **X-band rf driven free electron laser driver with optics linearization** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Sun, Y., Emma, P., Raubenheimer, T., Wu, J.
  2014; 17 (11)
- **Femtosecond Visualization of Laser-Induced Optical Relativistic Electron Microbunches** *PHYSICAL REVIEW LETTERS*
  Xiang, D., Hemsing, E., Dunning, M., Hast, C., Raubenheimer, T.
  2014; 113 (18)
- **First Characterization of Coherent Optical Vortices from Harmonic Undulator Radiation** *PHYSICAL REVIEW LETTERS*
  Hemsing, E., Dunning, M., Hast, C., Raubenheimer, T., Xiang, D.
  2014; 113 (13)
- **First Characterization of Coherent Optical Vortices from Harmonic Undulator Radiation** *PHYSICAL REVIEW LETTERS*
  Hemsing, E., Dunning, M., Hast, C., Raubenheimer, T., Xiang, D.
  2014; 113 (13)
- **Highly coherent vacuum ultraviolet radiation at the 15th harmonic with echo-enabled harmonic generation technique** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Hemsing, E., Dunning, M., Hast, C., Raubenheimer, T. O., Weathersby, S., Xiang, D.
  2014; 17 (7)
- **Direct observation of fine-scale energy banding in echo-enabled harmonic generation** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Hemsing, E., Xiang, D., Dunning, M., Weathersby, S., Hast, C., Raubenheimer, T.
  2014; 17 (1)
- **Demonstration of harmonic interaction in an undulator up to the 15th order** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Xiang, D., Hemsing, E., Dunning, M., Hast, C., Raubenheimer, T. O., Weathersby, S., Fu, F.
  2013; 16 (11)
- **Beam ion instability: Measurement, analysis, and simulation** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Wang, L., Safranek, J., Cai, Y., Corbett, J., Hettel, R. O., Raubenheimer, T. O., Schmerge, J., Sebek, J.
  2013; 16 (10)
- **Demonstration of Cascaded Optical Inverse Free-Electron Laser Accelerator** *PHYSICAL REVIEW LETTERS*
  Dunning, M., Hemsing, E., Hast, C., Raubenheimer, T. O., Weathersby, S., Xiang, D., Fu, F.
  2013; 110 (24)
- **Modeling and design of an X-band rf photoinjector** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Marsh, R. A., ALBERT, F., Anderson, S. G., Beer, G., Chu, T. S., Cross, R. R., DEIS, G. A., Ebbers, C. A., Gibson, D. J., Houck, T. L., Hartemann, F. V., Barty, C. P., Candel, et al
  2012; 15 (10)
- **Generating periodic terahertz structures in a relativistic electron beam through frequency down-conversion of optical lasers** *PHYSICAL REVIEW LETTERS*
  Dunning, M., Hast, C., Hemsing, E., Jobe, K., McCormick, D., Nelson, J., Raubenheimer, T. O., Soong, K., Szalata, Z., Walz, D., Weathersby, S., Xiang, D.
  2012; 109 (7)
- **Mode-locked multichromatic x rays in a seeded free-electron laser for single-shot x-ray spectroscopy** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*

Xiang, D., Ding, Y., Raubenheimer, T., Wu, J.
2012; 15 (5)

- **Low-charge, hard x-ray free electron laser driven with an X-band injector and accelerator** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Sun, Y., Adolphsen, C., Limborg-Deprey, C., Raubenheimer, T., Wu, J.
  2012; 15 (3)
- **Evidence of High Harmonics from Echo-Enabled Harmonic Generation for Seeding X-Ray Free Electron Lasers** *PHYSICAL REVIEW LETTERS*
  Xiang, D., Colby, E., Dunning, M., Gilevich, S., Hast, C., Jobe, K., McCormick, D., Nelson, J., Raubenheimer, T. O., Soong, K., Stupakov, G., Szalata, Z., Walz, et al
  2012; 108 (2)
- **VELOCIRAPTOR: An X-band photoinjector and linear accelerator for the production of Mono-Energetic gamma-rays** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Anderson, S. G., ALBERT, F., Bayramian, A. J., Beer, G., Bonanno, R. E., Cross, R. R., Deis, G., Ebbers, C. A., Gibson, D. J., Hartemann, F. V., Houck, T. L., Marsh, R. A., McNabb, et al
  2011; 657 (1): 140-149
- **All-optical time-resolved measurement of laser energy modulation in a relativistic electron beam** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Xiang, D., Colby, E., Dunning, M., Gilevich, S., Hast, C., Jobe, K., McCormick, D., Nelson, J., Raubenheimer, T. O., Soong, K., Stupakov, G., Szalata, Z., Walz, et al
  2011; 14 (11)
- **Demonstration of the Echo-Enabled Harmonic Generation Technique for Short-Wavelength Seeded Free Electron Lasers** *PHYSICAL REVIEW LETTERS*
  Xiang, D., Colby, E., Dunning, M., Gilevich, S., Hast, C., Jobe, K., McCormick, D., Nelson, J., Raubenheimer, T. O., Soong, K., Stupakov, G., Szalata, Z., Walz, et al
  2010; 105 (11)
- **Experimental observations of in situ secondary electron yield reduction in the PEP-II particle accelerator beam line** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Pivi, M. T., Collet, G., King, F., Kirby, R. E., Markiewicz, T., Raubenheimer, T. O., Seeman, J., Le Pimpec, F.
  2010; 621 (1-3): 47-56
- **Observation of magnetic resonances in electron clouds in a positron storage ring** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Pivi, M. T., Ng, J. S., Cooper, F., KHARAKH, D., King, F., Kirby, R. E., Kuekan, B., Spencer, C. M., Raubenheimer, T. O., Wang, L. F.
  2010; 621 (1-3): 33-38
- **Plasma wakefield acceleration experiments at FACET** *NEW JOURNAL OF PHYSICS*
  Hogan, M. J., Raubenheimer, T. O., Seryi, A., Muggli, P., Katsouleas, T., Huang, C., Lu, W., An, W., Marsh, K. A., Mori, W. B., Clayton, C. E., Joshi, C.
  2010; 12
- **Present status and first results of the final focus beam line at the KEK Accelerator Test Facility** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Bambade, P., Pons, M. A., Amann, J., Angal-Kalinin, D., Apsimon, R., Araki, S., Aryshev, A., Bai, S., Bellomo, P., Bett, D., Blair, G., Bolzon, B., Boogert, et al
  2010; 13 (4)
- **Sharp reduction of the secondary electron emission yield from grooved surfaces** *JOURNAL OF APPLIED PHYSICS*
  Pivi, M., King, F. K., Kirby, R. E., Raubenheimer, T. O., Stupakov, G., Le Pimpec, F.
  2008; 104 (10)
- **Direct measurement of the transverse wakefields of tapered collimators** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*

Tenenbaum, P., Bane, K. L., Eriksson, L., Irwin, J., Jobe, R. K., McCormick, D., Ng, C. K., Raubenheimer, T. O., Ross, M. C., Stupakov, G., Walz, D., Onoprienko, D., Zagorodnov, et al
2007; 10 (3)

- **Suppression of secondary emission in a magnetic field using triangular and rectangular surfaces** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Wang, L., Raubenheimer, T. O., Stupakov, G.
  2007; 571 (3): 588-598

- **Secondary electron yield and groove chamber tests in PEP-II** *2007 IEEE PARTICLE ACCELERATOR CONFERENCE, VOLS 1-11*
  Pivi, M., Collet, G., King, F., Kirby, R., Markiewicz, T., Raubenheimer, T., Seeman, J., Wang, L., Le Pimpec, F.
  2007: 3739-3741

- **Design of the beam delivery system for the international linear collider** *2007 IEEE PARTICLE ACCELERATOR CONFERENCE, VOLS 1-11*
  Seryi, A., Amann, J., Arnold, R., Asiri, F., Bane, K., Bellomo, P., Doyle, E., Fasso, A., Jonghoon, K., Keller, L., Ko, K., Li, Z., Markiewicz, et al
  2007: 3773-3775

- **Suppression of secondary electron emission using triangular grooved surface in the ILC dipole and wiggler magnets** *2007 IEEE PARTICLE ACCELERATOR CONFERENCE, VOLS 1-11*
  Wang, L., Bane, K., Chen, C., Himel, T., Munro, M., Pivi, M., Raubenheimer, T., Stupakov, Q.
  2007: 532-534

- **Luminosity, energy and polarization studies for the Linear Collider: Comparing e(+)e(-) and e(-)e(-) for NLC and TESLA** *5th International Workshop on Electron-Electron Interactions at TeV Energies*
  Woods, M., Moffeit, K. C., Raubenheimer, T. O., Seryi, A., Sramek, C., Florimonte, A.
  WORLD SCIENTIFIC PUBL CO PTE LTD.2005: 7433–49

- **Dark currents and their effect on the primary beam in an X-band linac** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Bane, K. L., Dolgashev, V. A., Raubenheimer, T., Stupakov, G. V., Wu, J. H.
  2005; 8 (6)

- **Single-bunch instability driven by the electron cloud effect in the positron damping ring of the International Linear Collider** *2005 IEEE PARTICLE ACCELERATOR CONFERENCE (PAC), VOLS 1-4*
  Pivi, M., Raubenheimer, T., Ghalam, A., Harkay, K., Ohmi, K., Wanzenberg, R., Wolski, A., Zimmermann, F.
  2005: 2257-2259

- **Proposal of the next incarnation of accelerator test facility at KEK for the international linear collider** *2005 IEEE PARTICLE ACCELERATOR CONFERENCE (PAC), VOLS 1-4*
  Araki, S., Hayano, H., Higashi, Y., Honda, Y., Kanazawa, K., Kubo, K., Kume, T., Kuriki, M., Kuroda, S., Masuzawa, M., Naito, T., SUGAHARA, O., Takahashi, et al
  2005: 2167-2169

- **Luminosity optimization with offset, crossing angle, and distortion** *21st Particle Accelerator Conference (PAC)*
  Wu, J. H., Raubenheimer, T. O.
  IEEE.2005: 315–317

- **Luminosity loss due to beam distortion and the beam-beam instability** *21st Particle Accelerator Conference (PAC)*
  Wu, J. H., Raubenheimer, T. O., Chao, A. O., Seryi, A., Sramek, C. K.
  IEEE.2005: 318–320

- **A test facility for the International Linear Collider, at SLAC end station A for prototypes of Beam Delivery and IR components** *21st Particle Accelerator Conference (PAC)*
  Woods, M., Erickson, R., Frisch, J., Hast, C., Jobe, R. K., Keller, L., Markiewicz, T., Maruyama, T., McCormick, D., Nelson, J., PHINNEY, N., Raubenheimer, T., Ross, et al
  IEEE.2005: 2239–2241

- **Suppressing electron cloud in future linear colliders** *2005 IEEE PARTICLE ACCELERATOR CONFERENCE (PAC), VOLS 1-4*
  Pivi, M., Kirby, R. E., Raubenheimer, T., Le Pimpec, F.
  2005: 1367-1371

- **Electron-cloud effects in transport lines of a normal conducting linear collider** *21st Particle Accelerator Conference (PAC)*

Wu, J. H., Seryi, A., Raubenheimer, T. O.
IEEE.2005: 2242–2244

- **Multi-stage bunch compressors for the International Linear Collider** *2005 IEEE PARTICLE ACCELERATOR CONFERENCE (PAC), VOLS 1-4*
  Tenenbaum, P., Raubenheimer, T. O., Wolski, A.
  2005: 2236-2238
- **An afterburner at the ILC: The collider viewpoint** *ADVANCED ACCELERATOR CONCEPTS*
  Raubenheimer, T. O.
  2004; 737: 86-94
- **Impact of the wiggler coherent synchrotron radiation impedance on the beam instability and damping ring optimization** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Wu, J. H., Stupakov, G. V., Raubenheimer, T. O., Huangx, Z. R.
  2003; 6 (10)
- **Beam dynamics of the interaction region solenoid in a linear collider due to a crossing angle** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Tenenbaum, P., Irwin, J., Raubenheimer, T. O.
  2003; 6 (6)
- **Calculation of the coherent synchrotron radiation impedance from a wiggler** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*
  Wu, J. H., Raubenheimer, T. O., Stupakov, G. V.
  2003; 6 (4)
- **A test of NLC-type beam loading in the SLAC linac** *20th Biennial Particle Accelerator Conference*
  Decker, F. J., Raubenheimer, T. O., Seryi, A., Turner, J. L., Woods, M., Yocky, J.
  IEEE.2003: 2754–2756
- **Comparison of the TESLA, NLC and CLIC beam-collimation system performance** *29th ICFA Advanced Beam Dynamics Workshop on Beam Halo Dynamics, Diagnostics, and Collimation held in Conjunction with Workshop on Beam-Beam Interactions*
  Drozhdin, A., Blair, G., Keller, L., Kozanecki, W., Markiewicz, T., Maruyama, T., Mokhov, N., Napoly, O., Raubenheimer, T., Schulte, D., Seryi, A., Tenenbaum, P., Walker, et al
  AMER INST PHYSICS.2003: 200–204
- **A lattice with larger momentum compaction for the NLC main damping rings** *20th Biennial Particle Accelerator Conference*
  Wolski, A., Raubenheimer, T. O., Woodley, M., Wu, J.
  IEEE.2003: 2775–2777
- **Comparison of the TESLA, NLC and CLIC beam-collimation system performance** *20th Biennial Particle Accelerator Conference*
  Drozhdin, A., Blair, G., Keller, L., Kozanecki, W., Markiewicz, T., Maruyama, T., Mokhov, N., Napoly, O., Raubenheimer, T., Schulte, D., Seryi, A., Tenenbaum, P., Walker, et al
  IEEE.2003: 2739–2741
- **Recent electron-cloud simulation results for the Main Damping Rings of the NLC and TESLA linear colliders** *20th Biennial Particle Accelerator Conference*
  Pivi, M., Raubenheimer, T. O., Furman, M. A.
  IEEE.2003: 3219–3221
- **Effects of dynamic misalignments and feedback performance on luminosity stability in linear colliders** *20th Biennial Particle Accelerator Conference*
  Seryi, A., Hendrickson, L., Raubenheimer, T. O., Tenenbaum, P., Woodley, M., Schulte, D.
  IEEE.2003: 662–664
- **Impact of the wiggler coherent synchrotron radiation impedance on the beam instability** *20th Biennial Particle Accelerator Conference*
  Wu, J. H., Stupakov, G. V., Raubenheimer, T. O., Huang, Z. R.
  IEEE.2003: 3231–3233
- **Calculation of the coherent synchrotron radiation impedance from a wiggler** *20th Biennial Particle Accelerator Conference*
  Wu, J. H., Raubenheimer, T. O., Stupakov, G.

IEEE.2003: 1038–1040

- **Implementation of dynamic misalignments and luminosity stabilization** *20th Biennial Particle Accelerator Conference*
  Hendrickson, L., Himel, T., Raubenheimer, T. O., Seryi, A., Tenenbaum, P., Woodley, M.
  IEEE.2003: 2757–2759
- **Optimized wakefield suppression & emittance dilution-imposed alignment tolerances in X-band accelerating structures for the JLC/NLC** *20th Biennial Particle Accelerator Conference*
  Jones, R. M., Li, Z., Miller, R. H., Raubenheimer, T. O.
  IEEE.2003: 2760–2762
- **Extremely low vertical-emittance beam in the accelerator test facility at KEK** *PHYSICAL REVIEW LETTERS*
  Kubo, K., Akemoto, M., Anderson, S., Aoki, T., Araki, S., Bane, K. L., Blum, P., Corlett, J., Dobashi, K., Emma, P., Frisch, J., Fukuda, M., Guo, et al
  2002; 88 (19)
- **Progress with the JLC/NLC X-band linear collider design** *INTERNATIONAL JOURNAL OF MODERN PHYSICS A*
  Raubenheimer, T. O.
  2001; 16: 1193-1196
- **Progress in the next linear collider design** *Workshop on Physics and Detectors for Future Linear e(plus) e(minus) Colliders*
  Raubenheimer, T. O.
  AMER INST PHYSICS.2001: 53–64
- **Evaluation of vertical emittance in KEK-ATF by utilizing lifetime measurement** *International Symposium on New Visions in Laser-Beam Interactions*
  Okugi, T., Hayano, H., Kubo, K., Naito, T., Terunuma, N., Urakawa, J., Hirose, T., Zimmermann, F., Raubenheimer, T. O.
  ELSEVIER SCIENCE BV.2000: 207–12
- **Emittance growth during bunch compression in the CTF-II** *PHYSICAL REVIEW LETTERS*
  Braun, H., Chautard, F., Corsini, R., Raubenheimer, T. O., Tenenbaum, P.
  2000; 84 (4): 658-661
- **Final-focus systems in linear colliders** *REVIEWS OF MODERN PHYSICS*
  Raubenheimer, T. O., Zimmermann, F.
  2000; 72 (1): 95-107
- **Scaling laws for e(+)/e(-) linear colliders** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Delahaye, J. P., Guignard, G., Raubenheimer, T., Wilson, I.
  1999; 421 (3): 369-405
- **Nonlinear resonant collimation for future linear colliders** *16th ICFA Beam Dynamics Workshop on Nonlinear and Collective Phenomena in Beam Physics*
  Emma, P., Helm, R., Nosochkov, Y., Pitthan, R., Raubenheimer, T., Thompson, K., Zimmermann, F.
  AIP PRESS.1999: 143–156
- **Feedback systems for linear colliders** *Workshop on Automated Beam Steering and Shaping (ABS)*
  Hendrickson, L., Grossberg, P., Himel, T., Minty, M., PHINNEY, N., Raimondi, P., Raubenheimer, T., SHOAEE, H., Tenenbaum, P.
  C E R N.1999: 127–27
- **Proposal for a one GeV plasma wakefield acceleration experiment at SLAC** *13th Advanced ICFA Beam Dynamics Workshop / 1st ICFA Novel and Advanced Accelerator Workshop - The 2nd Generation Plasma Accelerators*
  Assmann, R., Chen, P., Decker, F. J., Iverson, R., Raimondi, P., Raubenheimer, T., Rokni, S., Siemann, R., Walz, D., Whittum, D., Chattopadhyay, S., Leemans, W., Katsouleas, et al
  ELSEVIER SCIENCE BV.1998: 396–406
- **A 30 GHz 5-TeV linear collider** *PROCEEDINGS OF THE 1997 PARTICLE ACCELERATOR CONFERENCE, VOLS 1-3*
  Delahaye, J. P., Guignard, G., Irwin, J., Raubenheimer, T. O., Ruth, R. D., Wilson, I., Wilson, P. B.
  1998: 482-484
- **Emittance dilution in 1 and 5 TeV 30 GHz linear colliders** *PROCEEDINGS OF THE 1997 PARTICLE ACCELERATOR CONFERENCE, VOLS 1-3*

Guignard, G., Raubenheimer, T. O., Schulte, D.
1998: 473-475

- **First observations of a "fast beam-ion instability"** *PHYSICAL REVIEW LETTERS*
  Byrd, J., Chao, A., Heifets, S., Minty, M., Raubenheimer, T. O., Seeman, J., Stupakov, G., Thomson, J., Zimmermann, F.
  1997; 79 (1): 79-82

- **Longitudinal space charge in final-focus systems for linear colliders** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Zimmermann, F., Raubenheimer, T.
  1997; 390 (3): 279-285

- **Plasma possibilities in the NLC** *Workshop on Nonlinear and Collective Phenomena in Beam Physics*
  Heifets, S., Raubenheimer, T.
  AIP PRESS.1997: 265–73

- **Ion instability experiments on the ALS** *Workshop on Nonlinear and Collective Phenomena in Beam Physics*
  Byrd, J., Chao, A., Heifets, S., Minty, M., Raubenheimer, T., Seeman, J., Stupakov, G., Thomson, J., Zimmermann, F.
  AIP PRESS.1997: 175–90

- **Beam dynamics in plasma accelerators** *Workshop on Nonlinear and Collective Phenomena in Beam Physics*
  Katsouleas, T., Clayton, C. E., Wharton, K., Kinter, R., Peters, T., Heifets, S., Raubenheimer, T.
  AIP PRESS.1997: 75–86

- **Report of the working group on plasma phenomena in beams** *Workshop on Nonlinear and Collective Phenomena in Beam Physics*
  Berg, S. J., Bisognano, J., Bruening, O., Byrd, J., Chae, Y. C., Colestock, P., Corbett, J., DIKANSKY, N., Heifets, S., Litvenenko, V., Miano, G., Migliorati, M., Ng, et al
  AIP PRESS.1997: 23–29

- **Research and development toward a 4.5-1.5 angstrom linac coherent light source (LCLS) at SLAC** *17th International Free Electron Laser Conference*
  Tatchyn, R., ARTHUR, J., Baltay, M., Bane, K., Boyce, R., Cornacchia, M., Cremer, T., Fisher, A., Hahn, S. J., HERNANDEZ, M., Loew, G., Miller, R., Nelson, et al
  ELSEVIER SCIENCE BV.1996: 274–83

- **A technique of measuring and correcting emittance dilutions due to accelerator structure misalignments** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Raubenheimer, T. O., Kubo, K.
  1996; 370 (2-3): 303-311

- **A damping ring design for the SLAC next linear collider** *16th Biennial Particle Accelerator Conference*
  Raubenheimer, T. O., Byrd, J., Corlett, J., Early, R., Furman, M., Jackson, A., Krejcik, P., Kubo, K., Mattison, T., Minty, M., Moshammer, W., Robin, D., Scott, et al
  IEEE.1996: 701–703

- **Direct measurement of transverse wakefields in the SLC linac** *16th Biennial Particle Accelerator Conference*
  Krejcik, P., Assmann, R., Decker, F. J., Hartman, S., Miller, R., Raubenheimer, T.
  IEEE.1996: 659–661

- **High-intensity single bunch instability behavior in the new SLC damping ring vacuum chamber** *16th Biennial Particle Accelerator Conference*
  Bane, K., Bowers, J., Chao, A., Chen, T., Decker, F. J., HOLTZAPPLE, R. L., Krejcik, P., Limberg, T., Lisin, A., McKee, B., Minty, M. G., Ng, C. K., Pietryka, et al
  IEEE.1996: 3109–3111

- **Beam distribution function after filamentation** *16th Biennial Particle Accelerator Conference*
  Raubenheimer, T. O., Decker, F. J., Seeman, J. T.
  IEEE.1996: 3291–3293

- **Alignment tolerance of accelerating structures and corrections for future linear colliders** *16th Biennial Particle Accelerator Conference*
  Kubo, K., Adolphsen, C., Bane, K. L., Raubenheimer, T. O., Thompson, K. A.
  IEEE.1996: 3112–3114

- **Emittance and trajectory control in the main linacs of the NLC** *XVIII International Linear Accelerator Conference*
  Assmann, R., Adolphsen, C., Bane, K., Raubenheimer, T. O., Thompson, K.
  C E R N.1996: 470–72
- **Summary of the linac working group** *Micro Bunches Workshop*
  Raubenheimer, T. O.
  AIP PRESS.1996: 94–106
- **Compensation of longitudinal nonlinearities in the NLC bunch compressor** *Micro Bunches Workshop*
  Zimmermann, F., Raubenheimer, T. O.
  AIP PRESS.1996: 84–93
- **Ion effects in future circular and linear accelerators** *16th Biennial Particle Accelerator Conference*
  Raubenheimer, T. O.
  IEEE.1996: 2752–2756
- **SLC status and NLC design and R&D** *XVIII International Linear Accelerator Conference*
  Raubenheimer, T. O.
  C E R N.1996: 270–74
- **LIAR - A new program for the modelling and simulation of linear accelerators with high gradients and small emittances** *XVIII International Linear Accelerator Conference*
  Assmann, R., Adolphsen, C., Bane, K., Raubenheimer, T. O., Siemann, R., Thompson, K.
  C E R N.1996: 464–66
- **Parameters of the SLAC next linear collider** *16th Biennial Particle Accelerator Conference*
  Raubenheimer, T., Adolphsen, C., Burke, D., Chen, P., Ecklund, S., Irwin, J., Loew, G., Markiewicz, T., Miller, R., Paterson, E., PHINNEY, N., Ross, M., Ruth, et al
  IEEE.1996: 698–700
- **Emittance and energy control in the NLC main linacs** *16th Biennial Particle Accelerator Conference*
  Adolphsen, C., Bane, K. L., Kubo, K., Raubenheimer, T., Ruth, R. D., Thompson, K. A., Zimmermann, F.
  IEEE.1996: 2989–2991
- **SLC-2000: A luminosity upgrade for the SLC** *XVIII International Linear Accelerator Conference*
  Breidenbach, M., Decker, F. J., Helm, R., HERTZBACH, S., Napoly, O., PHINNEY, N., Raimondi, P., Raubenheimer, T. O., Siemann, R., Zimmermann, F.
  C E R N.1996: 323–25
- **A bunch compressor for the next linear collider** *16th Biennial Particle Accelerator Conference*
  Emma, P., Raubenheimer, T., Zimmermann, F.
  IEEE.1996: 704–706
- **A fast beam-ion instability** *16th Biennial Particle Accelerator Conference*
  Zimmermann, E., Raubenheimer, T. O., Stupakov, G.
  IEEE.1996: 3102–3104
- **Emittance dilution due to slow alignment drifts in the main linacs of the NLC** *XVIII International Linear Accelerator Conference*
  Assmann, R., Adolphsen, C., Bane, K., Raubenheimer, T. O., Thompson, K.
  C E R N.1996: 467–69
- **Long-range wakefields and split-tune lattice at the SLC** *XVIII International Linear Accelerator Conference*
  Decker, F. J., ADOLPHSEN, C. E., Assmann, R., Bane, K., Kubo, K., Minty, M., Raimondi, P., Raubenheimer, T., Ruth, R., SPENCE, W. L.
  C E R N.1996: 140–42
- **Long-range wakefields and split-tune lattice at the SLC** *XVIII International Linear Accelerator Conference*
  Decker, F. J., ADOLPHSEN, C. E., Assmann, R., Bane, K., Kubo, K., Minty, M., Raimondi, P., Raubenheimer, T., Ruth, R., SPENCE, W. L.
  C E R N.1996: 140–42
- **FAST BEAM-ION INSTABILITY .2. EFFECT OF ION DECOHERENCE** *PHYSICAL REVIEW E*

Stupakov, G. V., Raubenheimer, T. O., Zimmermann, F.
1995; 52 (5): 5499-5504

- **FAST BEAM-ION INSTABILITY .1. LINEAR-THEORY AND SIMULATIONS** *PHYSICAL REVIEW E*
  Raubenheimer, T. O., Zimmermann, F.
  1995; 52 (5): 5487-5498

- **ELECTRON-BEAM ACCELERATION AND COMPRESSION FOR SHORT-WAVELENGTH FELS** *16th International Free Electron Laser Conference*
  Raubenheimer, T. O.
  ELSEVIER SCIENCE BV.1995: 40–43

- **EMITTANCE GROWTH OF BUNCHED BEAMS IN BENDS** *PHYSICAL REVIEW E*
  Carlsten, B. E., Raubenheimer, T. O.
  1995; 51 (2): 1453-1470

- **SHORT-WAVELENGTH FELS USING THE SLAC LINAC** *8th National Conference on Synchrotron Radiation Instrumentation*
  Winick, H., Bane, K., Boyce, R., Cobb, J., Loew, G., Morton, P., Nuhn, H. D., Paterson, J., Pianetta, P., Raubenheimer, T., Seeman, J., Tatchyn, R., Vylet, et al
  ELSEVIER SCIENCE BV.1994: 199–205

- **THE SLAC SOFT-X-RAY HIGH-POWER FEL** *15th International Free Electron Laser Conference*
  Pellegrini, C., Rosenzweig, J., Travish, G., Bane, K., Boyce, R., Loew, G., Morton, P., Nuhn, H. D., Paterson, J., Pianetta, P., Raubenheimer, T., Seeman, J., Tatchyn, et al
  ELSEVIER SCIENCE BV.1994: 326–30

- **Prospects for high power linac coherent light source (LCLS) development in the 1000 angstrom-1 angstrom wavelength range** *4th International Colloquium on X-Ray Lasers*
  Tatchyn, R., Bane, K., Boyce, R., Loew, G., Miller, R., Nuhn, H. D., Palmer, D., Paterson, J., Raubenheimer, T., Seeman, J., Winick, H., Yeremian, D., Pellegrini, et al
  AIP PRESS.1994: 320–29

- **THE CORE EMITTANCE WITH INTRABEAM SCATTERING IN E(+)E(-) RINGS** *PARTICLE ACCELERATORS*
  Raubenheimer, T. O.
  1994; 45 (2-3): 111-118

- **THE VERTICAL EMITTANCE IN THE ATF DAMPING RING** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Raubenheimer, T. O., Egawa, K., Kikuchi, M., Kubo, K., Kuroda, S., Oide, K., Sakanaka, S., Terunuma, N., Urakawa, J.
  1993; 335 (1-2): 1-10

- **A 2 TO 4NM HIGH-POWER FEL ON THE SLAC LINAC** *14TH INTERNATIONAL CONF ON FREE ELECTRON LASER (FEL 92)*
  Pellegrini, C., Rosenzweig, J., Nuhn, H. D., Pianetta, P., Tatchyn, R., Winick, H., Bane, K., Morton, P., Raubenheimer, T., Seeman, J., Halbach, K., Kim, K. J., Kirz, et al
  ELSEVIER SCIENCE BV.1993: 223–27

- **A POSSIBLE REDESIGN OF THE SLAC SLC DAMPING RINGS** *1993 Particle Accelerator Conference*
  Raubenheimer, T. O., Early, R., Limberg, T., Moshammer, H., Spencer, J.
  I E E E.1993: 2025–2027

- **A 2-4 NM LINAC COHERENT-LIGHT SOURCE (LCLS) USING THE SLAC LINAC** *1993 Particle Accelerator Conference*
  Winick, H., Bane, K., Boyce, R., Loew, G., Morton, P., Nuhn, H. D., Paterson, J., Pianetta, P., Raubenheimer, T., Seeman, J., Tatchyn, R., Vylet, V., Pellegrini, et al
  I E E E.1993: 1445–1447

- **THE PRESERVATION OF LOW-EMITTANCE FLAT BEAMS** *1993 Particle Accelerator Conference*
  Raubenheimer, T. O.
  I E E E.1993: 11–15

- **CHICANE AND WIGGLER BASED BUNCH COMPRESSORS FOR FUTURE LINEAR COLLIDERS** *1993 Particle Accelerator Conference*
  Raubenheimer, T. O., Emma, P., KHEIFETS, S.

I E E E.1993: 635–637

- **METHOD TO EVALUATE STEERING AND ALIGNMENT ALGORITHMS FOR CONTROLLING EMITTANCE GROWTH** *1993 Particle Accelerator Conference*
  Adolphsen, C., Raubenheimer, T.
  I E E E.1993: 417–419

- **FLAT BEAMS IN THE SLC** *1993 Particle Accelerator Conference*
  Adolphsen, C., Barklow, T., Burke, D., Decker, F. J., Emma, P., Hildreth, M., Himel, T., Krejcik, P., Limberg, T., Minty, M., PHINNEY, N., Raimondi, P., Raubenheimer, et al
  I E E E.1993: 2019–2021

- **LINAC COHERENT-LIGHT SOURCE (LCLS) AT 2-4 NM USING THE SLAC LINAC** *Conference on Electron-Beam Sources of High-Brightness Radiation*
  Seeman, J. T., Bane, K., Boyce, R., Loew, G., Morton, P., Nuhn, H. D., Paterson, J., Pianetta, P., Raubenheimer, T., Tatchyn, R., Vylet, V., Winick, H., Pellegrini, et al
  SPIE - INT SOC OPTICAL ENGINEERING.1993: 116–125

- **ELECTRON-TRANSPORT OF A LINAC COHERENT-LIGHT SOURCE (LCLS) USING THE SLAC LINAC** *1993 Particle Accelerator Conference*
  BANE, K. L., Raubenheimer, T. O., Seeman, J. T.
  I E E E.1993: 596–598

- **COMPUTER STUDIES OF A COMBINED-FUNCTION BEND MAGNET FOR A PROPOSED REDESIGN OF THE SLAC SLC DAMPING RINGS** *1993 Particle Accelerator Conference*
  EARLY, R. A., Raubenheimer, T. O.
  I E E E.1993: 2880–2882

- **CALCULATIONS OF EMITTANCE AND DAMPING TIME EFFECTS IN THE SLC DAMPING RINGS** *3rd European Particle Accelerator Conference*
  Limberg, T., Moshammer, H., Raubenheimer, T., Spencer, J., Siemann, R.
  EDITIONS FRONTIERES.1992: 682–684

- **MEASURED EMITTANCE VERSUS STORE TIME IN THE SLC DAMPING RING** *3rd European Particle Accelerator Conference*
  Decker, F. J., Emma, P., Krejcik, P., Limberg, T., Minty, M., Moshammer, H., Raubenheimer, T., Ross, M., Seeman, J. T., Siemann, R., Spence, W., Spencer, J., Woodley, et al
  EDITIONS FRONTIERES.1992: 342–344

- **A NEW TECHNIQUE OF CORRECTING EMITTANCE DILUTIONS IN LINEAR COLLIDERS** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Raubenheimer, T. O.
  1991; 306 (1-2): 61-64

- **A DISPERSION-FREE TRAJECTORY CORRECTION TECHNIQUE FOR LINEAR COLLIDERS** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Raubenheimer, T. O., Ruth, R. D.
  1991; 302 (2): 191-208

- **A NEW METHOD OF CORRECTING THE TRAJECTORY IN LINACS** *14TH BIENNIAL PARTICLE ACCELERATOR CONF : ACCELERATOR SCIENCE AND TECHNOLOGY*
  Raubenheimer, T. O., Ruth, R. D.
  I E E E.1991: 2503–2505

- **A NEW TRAJECTORY CORRECTION TECHNIQUE FOR LINACS** *2ND EUROPEAN PARTICLE ACCELERATOR CONF AND THE MEDICAL SATELLITE MEETING*
  Raubenheimer, T. O., Ruth, R. D.
  EDITIONS FRONTIERES.1990: 1405–1407

- **ANALYTIC ESTIMATES OF COUPLING IN DAMPING RINGS** *IEEE PARTICLE ACCELERATOR CONF : ACCELERATOR SCIENCE AND TECHNOLOGY*
  Raubenheimer, T. O., Ruth, R. D.
  I E E E.1989: 1435–1437

- **A DAMPING RING DESIGN FOR FUTURE LINEAR COLLIDERS** *IEEE PARTICLE ACCELERATOR CONF : ACCELERATOR SCIENCE AND TECHNOLOGY*
  Raubenheimer, T. O., Gabella, W. E., MORTON, P. L., Lee, M. J., RIVKIN, L. Z., Ruth, R. D.
  I E E E.1989: 1316–1318
- **SUPERCONVERGENT TRACKING AND INVARIANT SURFACES IN PHASE-SPACE** *IEEE TRANSACTIONS ON NUCLEAR SCIENCE*
  Ruth, R. D., Raubenheimer, T., Warnock, R. L.
  1985; 32 (5): 2206-2208
- **A DIAGNOSTIC FOR DYNAMIC APERTURE** *IEEE TRANSACTIONS ON NUCLEAR SCIENCE*
  MORTON, P. L., Pellegrin, J. L., Raubenheimer, T., Rivkin, L., Ross, M., Ruth, R. D., SPENCE, W. L.
  1985; 32 (5): 2291-2293