

PUBLICATIONS

1. Lipson, E. D., Boehm F., and Vanderleeden, J. C. 1971. Measurement of parity admixtures in nuclear forces in ^{180}Hf and ^{159}Tb . Phys. Lett. 35B:307-310.
2. Vanderleeden, J. C., Boehm, F., and Lipson, E. 1971. Experiments on parity non-conservation in nuclear forces II. Gamma transitions in ^{203}Tl and ^{75}As . Phys. Rev. C4:2218-2223.
3. Lipson, E. D., Boehm, F., and Vanderleeden, J. C. 1972. Experiments on parity non-conservation in nuclear forces III. Gamma transitions in ^{180}Hf , ^{159}Tb , ^{181}Ta , ^{203}Tl and ^{182}W . Phys. Rev. C5:932-941.
4. Lipson, E. D. and Vanderleeden, J. C. 1972. A Monte Carlo calculation of the analyzing efficiency of gamma ray circular polarimeters. Nucl. Instr. and Meth. 104:525-530.
5. Delbrück, M., Lipson, E., and Lipson, C. 1972. Anfänge der wahrnehmung (The beginnings of perception). Mannheimer Forum. 72:53-82.
6. Foster, K. W. and Lipson, E. D. 1973. The light growth response of *Phycomyces*. J. Gen. Physiol. 62:590-617.
7. Lipson, E. D. 1975. White noise analysis of *Phycomyces* light growth response system. I. Normal intensity range. Biophys. J. 15:989-1011.
8. Lipson, E. D. 1975. White noise analysis of *Phycomyces* light growth response system. II. Extended intensity ranges. Biophys. J. 15:1013-1031.
9. Lipson, E. D. 1975. White noise analysis of *Phycomyces* light growth response system. III. Photomutants. Biophys. J. 15:1033-1045.
10. Lipson, E. D. 1975. Identification of the light growth response system of *Phycomyces* by white noise stimulation. Proceedings of First Symposium on Testing and Identification of Nonlinear Systems, California Institute of Technology. pp. 301-315.
11. Hall, P. F., Lewis, J. L., and Lipson, E. D. 1975. The role of mitochondrial cytochrome P-450 from bovine adrenal cortex in side-Chain cleavage of 20S,22R-dihydroxycholesterol. J. Biol. Chem. 250:2283-2286.
12. Lipson, E. D., Foster, K. W., and Walsh, M. P. 1976. A versatile pseudorandom noise generator. IEEE Trans. Instrum. Meas. 25:112-116.
13. Eslava, A. P., Alvarez, M. I., Lipson, E. D., Presti, D., and Kong, K. 1976. Recombination between mutants of *Phycomyces* with abnormal phototropism. Mol. Gen. Genet. 147:235-241.
14. Lipson, E. D. and Presti, D. 1977. Light-induced absorbance changes in *Phycomyces* photomutants. Photochem. Photobiol. 25:203-208.
15. Galau, G. A., Lipson, E. D., Britten, R. J., and Davidson, E. H. 1977. Synthesis and turnover of polysomal mRNAs in sea urchin embryos. Cell 10:415-432.
16. Harris, W. A., Ready, D. F., Lipson, E. D., Hudspeth, A. J., and Stark, W. S. 1977. Vitamin A deprivation and *Drosophila* photopigments. Nature 266:648-650.

17. Lipson, E. D. 1980. Sensory transduction in *Phycomyces* photoresponses. In: The Blue Light Syndrome. (H. Senger, editor) Springer-Verlag, Berlin-Heidelberg-New York, pp. 110-118.
18. Lipson, E. D., Terasaka, D. T., and Silverstein, P. S. 1980. Double mutants of *Phycomyces* with abnormal phototropism. *Mol. Gen. Genet.* 179:155-162.
19. Lipson, E. D. and Presti, D. 1980. Graphical estimation of cross sections from fluence-response data. *Photochem. Photobiol.* 32:383-391.
20. Lipson, E. D. and Terasaka, D. T. 1981. Photogeotropism in *Phycomyces* double mutants. *Exp. Mycol.* 5:101-111.
21. Lipson, E. D. 1983. Sensory information processing at the cellular level: The light response systems of *Phycomyces*. In: Radiation and Cellular Response (G. P. Scott and H. W. Wahner, eds.) The Iowa State University Press, Ames, Iowa, pp. 133-152.
22. Lipson, E. D., López-Díaz, I., and Pollock, J. A. 1983. Mutants of *Phycomyces* with enhanced tropisms. *Exp. Mycol.* 7:241-252.
23. López-Díaz, I. and Lipson, E. D. 1983. Genetic analysis of hypertropic mutants of *Phycomyces*. *Mol. Gen. Genet.* 190:318-325.
24. López-Díaz, I. and Lipson, E. D. 1983. Meiotic dysgenesis associated with behavioral mutants of *Phycomyces*. *Curr. Genet.* 7:313-322.
25. Lipson, E. D. and Block, S. M. 1983. Light and dark adaptation in *Phycomyces* light-growth response. *J. Gen. Physiol.* 81:845-859.
26. Lipson, E. D., Galland, P., and Pollock, J. A. 1984. Blue light receptors in *Phycomyces* investigated by action spectroscopy, fluorescence lifetime spectroscopy, and two-dimensional gel electrophoresis. In *Blue Light Effects in Biological Systems* (H. Senger, ed.) Springer-Verlag, Berlin-Heidelberg-New York. pp. 228-236.
27. Lipson, E. D. and Häder, D.-P. 1984. Video data acquisition for movement responses in individual organisms. *Photochem. Photobiol.* 39:437-441.
28. Galland, P., Pandya, A. and Lipson, E. D. 1984. Wavelength dependence of dark-adaptation in *Phycomyces* phototropism. *J. Gen. Physiol.* 84:739-751.
29. Galland, P. and Lipson, E. D. 1984. Photophysiology of *Phycomyces blakesleanus*. *Photochem. Photobiol.* 40:795-800 (invited review article).
30. Pollock, J. A., Lipson, E. D., and Sullivan, D. T. 1985. Analysis of microsomal flavoproteins in *Phycomyces* sporangiophores: Candidates for the blue-light photoreceptor. *Planta* 163:506-516.
31. Galland, P. and Lipson, E. D. 1985. Modified action spectra of photogeotropic equilibrium in *Phycomyces blakesleanus* mutants with defects in genes *madA*, *madB*, *madC*, and *madH*. *Photochem. Photobiol.* 41:331-335.
32. Galland, P. and Lipson, E. D. 1985. Action spectra for phototropic balance in *Phycomyces blakesleanus*: dependence on reference wavelength and intensity range. *Photochem. Photobiol.* 41:323-329.
33. Pollock, J. A., Lipson, E. D., and Sullivan, D. T. 1985. Electrophoretic analysis of proteins from night-blind mutants of *Phycomyces*. *Biochem. Genet.* 23:379-390.

34. Pollock, J. A. and Lipson, E. D. 1985. A flavoprotein in *Phycomyces blakesleeanus* with short fluorescence lifetime. *Photochem. Photobiol.* 41:351-354.
35. Galland, P., Palit, A., and Lipson, E. D. 1985. *Phycomyces*: Phototropism and light-growth response to pulse stimuli. *Planta* 165:538-547.
36. Reddy, V., Galland, P., and Lipson, E. D. 1985. A new allele with abnormal cyclic-AMP phosphodiesterase activity in *Phycomyces*. *Mol. Gen. Genet.* 201:124-125.
37. Garcés, R., Pollock, J. A., and Lipson, E. D. 1985. Examination of *Phycomyces blakesleeanus* for nitrate reductase as a possible blue light photoreceptor. *Plant Science*: 40:173-177.
38. Garcés, R., Chmielewicz, C., and Lipson, E. D. 1986. *Phycomyces*: A new gene for a flavoprotein with a covalently linked cofactor. *Mol. Gen. Genet.* 203:341-345.
39. Horwitz, B., Trad, C. H., and Lipson, E. D. 1986. Modified light-induced absorbance changes in *dimY* photoresponse mutants of *Trichoderma*. *Plant Physiol.* 81:726-730.
40. Horwitz, B., Trad, C. H., and Lipson, E. D. 1986. Differential spectrophotometry of *Phycomyces* mutants with abnormal photoresponses. *Photochem. Photobiol.* 44:207-214.
41. Pratap, P., Palit, A., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response with sum-of-sinusoids test stimuli. *Biophys. J.* 50:645-651.
42. Pratap, P., Palit, A., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response: Wavelength and temperature dependence. *Biophys. J.* 50:653-660.
43. Palit, A., Pratap, P., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response: Photoreceptor and hypertropic mutants. *Biophys. J.* 50:661-668.
44. Poe, R. C. and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response with Gaussian white noise test stimuli. *Biol. Cybern.* 55:91-98.
45. Poe, R. C., Pratap, P., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response: Single mutants. *Biol. Cybern.* 55:99-104.
46. Poe, R. C., Pratap, P., and Lipson, E. D. 1986. System analysis of *Phycomyces* light-growth response: Double mutants. *Biol. Cybern.* 55:105-113.
47. Häder, D. P., and Lipson, E. D. 1986. Fourier analysis of angular distributions for motile microorganisms. *Photochem. Photobiol.* 44:657-664.
48. Galland, P. and Lipson, E. D. 1987. Blue-light reception in *Phycomyces* phototropism: evidence for two photosystems operating in low- and high-intensity ranges. *Proc. Natl. Acad. Sci. U.S.A.* 84:104-108.
49. Horwitz, B., Lipson, E. D. and Schechtman, M. G. 1987. *In vivo* absorption spectra of *Neurospora crassa* white collar photomutants. *Exp. Mycol.* 11:74-76.
50. Lipson, E. D. 1987. Blue light responses of *Phycomyces* sporangiophores. In: *From Photophysics to Photobiology* (A. Favre, R. Tyrrell, and J. Cadet, eds.), Elsevier, Amsterdam, pp. 191-201.
51. Cerdá-Olmedo, E. and Lipson, E. D., eds. 1987. *Phycomyces*. Cold Spring Harbor Laboratory, New York (430 pages).

52. Galland, P. and Lipson, E. D. 1987. Light physiology of *Phycomyces* sporangiophores. In: *Phycomyces* (E. Cerdá-Olmedo and E. D. Lipson, editors) Cold Spring Harbor Laboratory, New York, pp. 49-92.
53. Cerdá-Olmedo, E. and Lipson, E. D. 1987. A biography of *Phycomyces*. In: *Phycomyces* (E. Cerdá-Olmedo and E. D. Lipson, editors) Cold Spring Harbor Laboratory, New York, pp. 7-26.
54. Lipson, E. D. and Galland, P. 1987. Measurement of *Phycomyces* light responses. In: *Phycomyces* (E. Cerdá-Olmedo and E. D. Lipson, editors) Cold Spring Harbor Laboratory, New York, pp. 367-373.
55. Galland, P. and Lipson, E. D. 1987. Light calibrations and radiometric units. In: *Phycomyces* (E. Cerdá-Olmedo and E. D. Lipson, editors) Cold Spring Harbor Laboratory, New York, pp. 375-380.
56. Trad, C. H. and Lipson, E. D. 1987. Biphasic fluence-response curves and derived action spectra for light-induced absorbance changes in *Phycomyces* mycelium. *J. Photochem. Photobiol., B: Biology* 1:169-180.
57. Lipson, E. D. 1987. Blue light responses of *Phycomyces*. In: *Phytochrome and Photoregulation in Plants* (M. Furuya, ed.), Academic Press, pp. 305-314.
58. Senger, H. and Lipson, E. D. 1987. Problems and prospects of blue and ultraviolet light effects. In: *Phytochrome and Photoregulation in Plants* (M. Furuya, ed.), Academic Press, pp. 315-331.
59. Trad, C. H., Horwitz, B., and Lipson, E. D. 1988. Light-induced absorbance changes in extracts of *Phycomyces* sporangiophores: Modifications in night-blind mutants. *J. Photochem. Photobiol., B: Biology* 1:305-313.
60. Lipson, E. D. and Pratap, P. 1988. System analysis of *Phycomyces* light-growth response with Gaussian white-noise and sum-of-sinusoids test stimuli. *Ann. Biomed. Eng.* 16:95-109.
61. Corrochano, L. M., Galland, P., Lipson, E. D., and Cerdá-Olmedo, E. 1988. Photomorphogenesis in *Phycomyces*: fluence-response curves and action spectra. *Planta* 174:315-320.
62. Palit, A., Pratap, P., and Lipson, E. D. 1989. System analysis of *Phycomyces* light-growth response: *madC*, *madG*, and *madH* mutants. *Biophys. J.* 55:519-526.
63. Alvarez, M. I., Eslava, A. P., and Lipson, E. D. 1989. Phototropism mutants of *Phycomyces blakesleeanus* isolated at low light intensity. *Exp. Mycol.* 13:38-48.
64. Galland, P., Corrochano, L. M., and Lipson, E. D. 1989. Subliminal light control of dark adaptation kinetics in *Phycomyces* phototropism. *Photochem. Photobiol.* 49:485-491.
65. Galland, P., Orejas, M., and Lipson, E. D. 1989. Light-controlled adaptation kinetics in *Phycomyces*: evidence for a novel yellow-light absorbing pigment. *Photochem. Photobiol.* 49:493-499.
66. Palit, A., Galland, P., and Lipson, E. D. 1989. High- and low-intensity photosystems in *Phycomyces* phototropism: effects of mutations in genes *madA*, *madB*, and *madC*. *Planta* 177:547-553.

67. Palit, A. and Lipson, E. D. 1989. System analysis of *Phycomyces* light-growth response in single and double night-blind mutants. *Biol. Cybern.* 60:385-393.
68. Trad, C. H. and Lipson, E. D. 1989. Electrophoretic analysis of proteins from *Phycomyces* mutants with abnormal tropisms. *Biochem. Genet.* 5/6:355-365.
69. Ensminger, P. A., Chen, X., and Lipson, E. D. 1990. Action spectra for photogravitropism of *Phycomyces* wild type and three behavioral mutants (L150, L152, and L154). *Photochem. Photobiol.* 51:681-687.
70. Bejarano, E. R., Avalos, J., Lipson, E. D., and Cerdá-Olmedo, E. 1990. Photoinduced accumulation of carotene in *Phycomyces*. *Planta* 183:1-9.
71. Ensminger, P. A., Schaefer, H. R., and Lipson, E. D. 1991. Action spectra of *Phycomyces* light-growth response. *Planta* 184:498-505.
72. Ensminger, P. A. and Lipson, E. D. 1991. Action spectra of the light-growth response in three behavioral mutants of *Phycomyces*. *Planta* 184:506-509.
73. Lipson, E. D. and Horwitz, B. A. 1991. Photosensory reception and transduction. In: *Sensory Receptors and Signal Transduction*. (J. Spudich and B. Satir, editors), (Modern Cell Biology, Vol. 7, B. Satir, series ed.) Wiley-Liss, New York, pp. 1-64.
74. Lipson, E. D. 1991. Action spectroscopy. In: *Biophysics of Photoreceptors and Photomovements in Microorganisms*. (Lenci, F., Ghetti, F., Colombetti, G., Häder, D.-P., and Song, P.-S., editors), Plenum, New York, pp. 293-309.
75. Lipson, E. D. 1991. Phototropism in fungi. In: *Biophysics of Photoreceptors and Photomovements in Microorganisms*. (Lenci, F., Ghetti, F., Colombetti, G., Häder, D.-P., and Song, P.-S., editors), Plenum, New York, pp. 311-325.
76. Horwitz, B. A, Amit, R., and Lipson, E. D. 1992. A fiber-optic ratio fluorimeter for mutant isolation. *Photochem. Photobiol.* 56:417-420.
77. Ensminger, P. A. and Lipson, E. D. 1992. Growth rate fluctuations in *Phycomyces* sporangiophores. *Plant Physiol.* 99:1376-1380.
78. Sineshchekov, A. V. and Lipson, E. D. 1992. Effect of calcium on dark adaptation in *Phycomyces* phototropism. *Photochem. Photobiol.* 56:667-675.
79. Chen, X., Xiong, Y., and Lipson, E. D. 1993. Action spectrum for subliminal light control of adaptation in *Phycomyces* phototropism. *Photochem. Photobiol.* 58:425-431.
80. Lipson, E. D. 1995. Action Spectroscopy: Methodology. In: *Handbook of Organic Photochemistry and Photobiology* (Horspool, W. and Song, P.-S., editors), CRC Press, Boca Raton, pp. 1257-1266.
81. Catterall, S., Goldberg, M., Lipson, E., Middleton, A., and Vidali, G. Implementation of information technologies in the teaching of "Science for the 21st Century" *Int. J. Mod. Phys. C* 8:49-66, 1997.
82. Warner, S., Catterall, S., and Lipson E.D. Java simulations for physics education. 1997. *Concurrency: Practice and Experience* 9:477-484.

83. Lipson, E., D. Warner, and Y.-J. Chang. 1999. Universal Interfacing System for Interactive Technologies in Telemedicine, Disabilities, Rehabilitation, and Education. In: *Medicine meets virtual reality: the convergence of physical and informational technologies – options for a new era in healthcare.* (J. Westwood, H. Hoffmann, R. Robb, D. Stredney, eds.) Amsterdam: IOS Press, pp. 205-211.
84. Warner, S., S. Catterall, E. Gregory, & E. Lipson. 2000. SimScience: Interactive educational modules based on large simulations" *Comput. Phys. Comm.* 127(1):1–5.
85. Korenberg, M. J., Lipson, E. D., Green, J. R., and Solomon, J. E. 2002. Parallel cascade recognition of exon and intron DNA sequences. *Ann. Biomed. Eng.* 30:129–140.
86. Krol, A., Echeruo, I., Salgado, R. B., Hardikar, A. S., Bowsher, J. E., Feiglin, D. H., Thomas, F. D., Lipson, E., and Coman, I. 2002. EM-IntraSPECT algorithm with ordered subsets (OSEMIS) for non-uniform attenuation correction in cardiac imaging. *Medical Imaging 2002: Image Processing*, M. Sonka, and J. M. Fitzpatrick, eds., Proc. SPIE Vol. 4684: 1022-1027.
87. Lipson, E. D. 2003. Action Spectroscopy — General Problems. In: *Handbook of Organic Photochemistry and Photobiology*, 2nd ed. (Horspool, W. and Lenci, F., eds.), CRC Press, Boca Raton, Ch. 112, pp. 1-11.
88. Krol, A., Salgado, R. B., Feiglin, D. H., Gangal, K. R., Hardikar, A. S., Thomas, F. D., Lipson, E. D., Bordikar, A., and Coman, I. L. 2002. Combined Cone-Beam and Parallel-Beam Approach to SPECT. *Proc. IEEE Medical Imaging Conf.* 2:1032–1034.
89. Salgado, R. B., Krol, A., Feiglin, D. H., Gangal, K. R., Hardikar, A. S., Thomas, F. D., Lipson, E. D., Bordikar, A., and Coman, I. L. 2002. Theoretical Studies on Optimization of Tomographic Performance of Cone-Beam Collimator for SPECT Scintimammography. *Proc. IEEE Medical Imaging Conf.* (4 pages)
90. Coman, I. L., Luo, M., Krol, A., Feiglin, D. H., Mandel, J. A., Lipson, E. D. and Beaumont, J. 2003. Multimodality image fusion for enhanced breast cancer diagnosis, *Eur. J. Nuc. Med.* 30:S330-S331.
91. Krol, A., Feiglin, D.H., Gangal, K. R., Coman, I. L., Salgado, R.B., Lipson, E. D., Karczewski, D. A., Thomas F.D. 2003. Experimental studies of SPECT scintimammography with combined cone-beam and parallel-beam collimators. *Proc. SPIE* 5031:563-569.
92. Krol, A., Gangal, K. R., Feiglin, D. H., Sinha, T., Coman, I. L., Salgado, R. B., Lee, W., Lipson, E. D., Karczewski, D. A., and Thomas F. D. 2003. Development of enhanced SPECT scintimammography, *Eur. J. Nuc. Med.* 30, S333.
93. Krol, A., Coman, I. L., Mandel, J., Baum, K., Luo, M., Feiglin, D. H., Lipson, E. D., and Beaumont, J. 2003. Intermodality nonrigid breast-image registration using finite-element method. *IEEE Nuclear Science Symposium and Medical Imaging Conference Record* 3:1958–1961.
94. Krol, A., Kieffer, J.-C., Nees, J., Chen, L., Toth, R., Hou, B., Kincaid, R. E., Coman, I. L., Chamberlain, C. C., Lipson, E., and Mourou G. 2003. Development of novel ultrafast-laser-based micro-CT system for small-animal imaging. *IEEE Nuclear Science Symposium and Medical Imaging Conference Record* 3:1993–1996.

95. Slamani, A.-M., Krol, A., Beaumont, J., Price, R. L., Coman, I. L., and Lipson, E. D. 2004. Three-dimensional reconstruction of large tissue volumes from scanning laser confocal microscopy. Proc. SPIE 5370:1972-1979 (Medical Imaging 2004: Image Processing; Fitzpatrick, J. M. and Sonka, M., eds.).
96. Coman, I. L., Krol, A., Mandel, J. A., Baum, K. G., Luo, M., Lipson, E. D., and Feiglin, D. H. 2004. Finite-element method for intermodality nonrigid breast registration using external skin markers. Proc. SPIE 5370:1152-1155 (Medical Imaging 2004: Image Processing; Fitzpatrick, J. M. and Sonka, M., eds.).
97. Krol, A., Kieffer, J. C., Nees, J., Chen, L., Toth, R., Hou, B., Kincaid, R. E. Jr., Coman, I. L., Lipson, E. D., Mourou, G. 2004. Ultrafast laser-based micro-CT system for small-animal imaging Proc. SPIE 5368:265-271 (Medical Imaging 2004: Physics of Medical Imaging; Yaffe, M. J., Flynn, M. J., eds.).
98. Coman, I., Krol, A., Feiglin, D., Li, W., Lipson, E., Mandel, J., Baum, K., and Unlu, M. 2004. Intermodality Nonrigid Breast-Image Registration. Proc. IEEE Int. Symp. on Biomed. Imaging, Arlington, VA, Conference Record, pp. 1439–1442.
99. Krol, A., Chamberlain, C., Kieffer, J.-C., Chen, L., Toth, R., Coman, I., Lipson, E., Kincaid, R. E. 2004. Micro-CT System for Small Animal Imaging with Ultrafast Laser-Based X-Ray Source. Proc. IEEE Int. Symp. on Biomed. Imaging, Arlington, VA, Conference Record, pp. 1516-1520.
100. Krol, A., Feiglin, D. H., Lee, W., Kunniyur, V. R., Gangal, K. R., Coman, I. L., Lipson, E. D., Karczewski, D. A., and Thomas, F. D. 2004. Maximum-likelihood expectation-maximization algorithm for improved clinical SPECT scintimammography. IEEE Nuclear Science Symposium and Medical Imaging Conference (4-page paper published in conference proceedings as M9-199).
101. Krol, A., Feiglin, D. H., Lee, W., Kunniyur, V. R., Salgado, R., Coman, I. L., Lipson, E. D., Karczewski, D. A., Thomas, F. D. 2004. Application of Ordered-Subsets Expectation-Maximization (OSEM) Algorithm to Cone-Beam SPECT for Accelerated 3D Reconstruction. IEEE Nuclear Science Symposium and Medical Imaging Conference (3-page paper published in conference proceedings as M10-208).
102. Deformable model for 3D intramodal nonrigid breast image registration with fiducial skin markers. 2005. Unlu, M. Z., Krol, A., Coman, I. L., Mandel, J. A., Baum, K. G., Lee, W., Lipson, E. D., and Feiglin D. H., Proc. SPIE 5747 (Medical Imaging 2005: Image Processing, Fitzpatrick, J. M. and Reinhardt, J. M., Eds.), pp. 1528-1534.
103. Krol, A., Kunniyur, V. R., Lee, W., Gangal, K. R., Coman, I. L., Lipson, E. D., Karczewski, D. A., Thomas, F. D., and Feiglin, D. H. 2005. Implementation of sensitivity and resolution modeling for SPECT with cone-beam collimator. Proc. SPIE 5747 (Medical Imaging 2005: Image Processing, Fitzpatrick, J. M. and Reinhardt, J. M., Eds.), pp. 2130-2135.
104. Krol, A., Feiglin, D. H., Lee, W., Kunniyur, V. R., Gangal, K. R., Coman, I. L., Lipson, E. D., Karczewski, D. A., and Thomas, F. D. 2005. MLEM algorithm adaptation for improved SPECT scintimammography. Proc. SPIE 5747 (Medical Imaging 2005: Image Processing, Fitzpatrick, J. M. and Reinhardt, J. M., Eds.), pp. 2158-2162.

105. Poddar, A. H., Krol, A., Beaumont, J., Price, R. L., Slamani, M. A., Fawcett, J., Subramanian, A., Coman, I. L., Lipson, E. D., and Feiglin, D. H. 2005. Ultrahigh resolution 3D model of murine heart from micro-CT and serial confocal laser scanning microscopy images. *IEEE Med. Imaging Conf. Record*, October 2005, Puerto Rico (3 pages).
106. Ye, H., Krol, A., Feiglin, D. H., Lipson, E. D., Lee, W., and Coman, I. L. 2006. Implementation of strip-area system model for fan-beam collimator SPECT reconstruction, *Proc. SPIE Vol. 6142, Medical Imaging 2006: Physics of Medical Imaging* (Flynn, M. J. and Hsieh, J., Eds.), 614240 (7 pages).
107. Unlu, M. Z., Krol, A., Magri, A., Feiglin, D. H., Mandel, J. A., Lipson, E. D., Coman, I. L., Lee, W., and Tillapaugh-Fay, G. 2006. Iterative deformable FEM model for nonrigid PET/MRI breast image coregistration, *Proc. SPIE Vol. 6144, Medical Imaging 2006: Image Processing* (Reinhardt, J. M., and Pluim, J. P., Eds.), 614435 (10 pages).
108. Krol, A., Magri, A., Unlu, M., Feiglin, D., Lipson, E., Mandel, J., Tillapaugh-Fay, G., Lee, W., Coman, I., and Szeverenyi, N. M. 2006. Motion correction via nonrigid coregistration of dynamic MR mammography series, *Proc. SPIE Vol. 6144, Medical Imaging 2006: Image Processing* (Reinhardt, J. M., and Pluim, J. P., Eds.), 614439 (7 pages).
109. Krol, A., Unlu, M. Z., Magri, A., Lipson, E., Coman, I. L., Mandel, J. A., Baum, K. G., Feiglin, D. H. 2006. Iterative Finite Element Deformable Model for Nonrigid Coregistration of Multimodal Breast Images, *IEEE Int. Symp. Biomed. Imaging (ISBI): From Nano to Macro*, Conf. Record (4 pages).
110. Krol, A., Unlu, M. Z., Baum, K. G., Mandel, J. A., Lee, W., Coman, I. L., Lipson, E. D., and Feiglin, D. H. 2006. MRI/PET nonrigid breast-image registration using skin fiducial markers. *Physica Medica XXI*, Suppl. 1, pp. 31-35.
111. Krol, A., Kieffer, J.-C., Toth, R., Lipson, E. D., Kincaid, R. E., Coman, I. L. 2006. Development of an ultrafast laser-based micro-CT system for small animal imaging, *Int. J. Sci. Res.* 16:285-290.
112. Lipson, E. D., Krol, A., Unlu, M. Z., Coman, I. L., Mandel, J. A., Lee, W., Feiglin, D. H., 2006. Development of deformable model for 3D nonrigid breast image registration for improved breast cancer diagnosis, *Int. J. Sci. Res.* 16:291-296.
113. Slamani, M. A., Krol, A., Beaumont, J., Price, R. L., Coman, I. L., Lipson, E. D. 2006. Application of phase correlation to the montage synthesis and 3D reconstruction of large tissue volumes from confocal laser scanning microscopy, *Microsc. Microanal.* 12:106-112.
114. Krol, A., Kincaid, R., Servol, M., Kieffer, J.-C., Nesterets, Y., Gureyev, T., Stevenson, A., Wilkins, S., Ye, H., Lipson, E., Toth, R., Pogany, A., and Coman, I. 2007. Initial experimentation with in-line holography x-ray phase-contrast imaging with an ultrafast laser-based x-ray source, *Proc. SPIE 6510 (Medical Imaging 2007: Physics of Medical Imaging)*, 65100L (11 pages).
115. Krol, A., Ye, H., Kincaid, R., Boone, J., Servol, M., Kieffer, J.-C., Nesterets, Y., Gureyev, T., Stevenson, A., Wilkins, S., Lipson, E., Toth, R., Pogany, A., and Coman, I. 2007. Mean absorbed dose to mouse in micro-CT imaging with an ultrafast laser-based x-ray source, *Proc. SPIE 6510 (Medical Imaging 2007: Physics of Medical Imaging)*, 65103P (6 pages).

116. Magri, A., Krol, A., Unlu, M., Lipson, E., Mandel, J., McGraw, W., Lee, W., Coman, I., and Feiglin, D. 2007. Nonrigid registration of dynamic breast F-18-FDG PET/CT images using deformable FEM model and CT image warping, *Proc. SPIE 6512 (Medical Imaging 2007: Image Processing)*, 65120D (11 pages).
117. Ye, H., Krol, A., Lipson, E.D., Kunniyur, V.R., Lee, W., and Feiglin, D.H. 2007. A Practical Correction of Scatter-Related Artifacts in SPECT Reconstruction, *Proc. SPIE 6510 (Medical Imaging 2007: Physics of Medical Imaging)*, 651051 (4 pages).
118. Ye, H., Krol, A., Lipson, E. D., and Feiglin, D. H. 2007. Implementation of a fully 3D iterative reconstruction of combined parallel- and cone-beam collimator SPECT. Conference Record, IEEE Nuclear Science Symposium and Medical Imaging Conference, Honolulu Hawaii, Oct/Nov 2007, *M18-262* (4 pages).
119. Podgorny, M., Beca, L., Santanam, S., Lewandowski, G., Markowski, R., Michalak, G., Roman, P., Gelling, P., Lipson, E., and Bogucz, E. 2007. Open web services-based indoor climate control system. REHVA World Congress, Clima 2007 WellBeing Indoors, June 2007, Helsinki, Finland, Proceedings CD (Seppänen, O. and Säteri, J., eds.) (#1689; 9 pages).
120. Podgorny, M., Beca, L., Santanam, S., Lewandowski, G., Markowski, R., Michalak, G., Roman, P., Gelling, P., Lipson, E., and Bogucz, E. 2007. Digital convergence and building automation systems. REHVA World Congress, Clima 2007 WellBeing Indoors, June 2007, Helsinki, Finland, Proceedings CD (Seppänen, O. and Säteri, J., eds.) (#1344; 7 pages).
121. Lipson, E.D. 2007. From physics to biology: my five years (and beyond) with Max Delbrück. In: *Max Delbrück and the New Perception of Biology 1906-1981 – A Centenary Celebration, University of Salamanca October 9th–10th 2006*. Shropshire, W., Jr., ed. (AuthorHouse, Bloomington, Indiana), pp. 101–115.
122. Lu, Y., Ye, H., Xu, Y., Hu, X., Shen, L., Feiglin, D. H., Lipson, E. D., and Krol, A. 2008. Expectation maximization SPECT reconstruction with a content-adaptive singularity-based mesh-domain image model. *Proc. SPIE: 6913 (Medical Imaging 2008: Physics of Medical Imaging, Hsieh, J. and Samei, E., eds.)* 69132F (6 pages).
123. Ye, H., Feiglin, D. H., Lipson, E. D., and Krol, A. 2008. Development of a fully 3D adaptive system model for cone-beam SPECT expectation-maximization reconstruction. *Proc. SPIE: 6913 (Medical Imaging 2008: Physics of Medical Imaging, Hsieh, J. and Samei, E., eds.)* 69132K (7 pages).
124. Nesterets, Y. I., Gureyev, T. E., Stevenson, A. W., Pogany, A., Wilkins, S. W., Kincaid, R. E., Ye, H., Vogelsang, L., Lipson, E. D., Coman, I. L., Fourmaux, S., Kieffer, J.-C., and Krol, A. 2008. Soft tissue small avascular tumor imaging with x-ray phase-contrast micro-CT in inline holography setup. *Proc. SPIE: 6913 (Medical Imaging 2008: Physics of Medical Imaging, Hsieh, J. and Samei, E., eds.)* 69133Z (7 pages).
125. Magri, A. W., Krol, A., Feiglin, D., Lipson, E. D., Mandel, J., McGraw, W., and Lee, W. 2008. Parametric dynamic F-18-FDG PET/CT breast imaging. *Proc. SPIE: 6916 (Medical Imaging 2008: Physiology, Function, and Structure from Medical Images, Hu, X. P. and Clough, A. V., eds.)* 69161D (12 pages).

126. Kincaid, R., Krol, A., Fourmaux, S., Kieffer, J.-C., Serbanescu, C., Servol, M., Vogelsang, L., Wilkins, S., Stevenson, A., Nesterets, Y., Lipson, E., Ye, H., Pogany, A. 2008. Development of ultrafast laser-based x-ray in-vivo phase-contrast micro-CT beamline for biomedical applications at Advanced Laser Light Source (ALLS), *Proc. SPIE: 7078 (Developments in X-Ray Tomography VI, Stock, S. R., ed.)* 707818 (12 pages).