Publications Knud Thomsen, as of Summer 2024

1. "Gemessene Zerstäubungskoeffizienten", K. Thomsen, Diplomarbeit aus Physik, Technische Universität Wien, 1980
2. "Hausdorffmaß und Hausdorffdimension", K. Thomsen, Diplomarbeit aus Mathematik, Technische Universität Wien, 1980
3. "Laserfluoreszenzmessungen an niederenergetischen Atomen", K. Thomsen, Doctoral Dissertation, Technische Universität Wien, 1982
4. "Basic Investigations on Laserfluorescence", K. Thomsen, W. Husinsky and G. Betz, SASP 82, Juni 1982, Wien
5. "A Laser Surveillance System for Spent Fuel Storage Pools (LASSY)", K. Thomsen, W. Pflügl, H. Böck und J. Hammer, Final Report IAEA Research Contract 3458/RB, April 1985
6. "Ein Laser-Überwachungssystem für Brennelement-Lagerbecken", K. Thomsen, W. Pflügl, H. Böck und J. Hammer, Deutsche Reaktortagung 1985, München
7. "The Laser Surveillance System", K. Thomsen, W. Pflügl, H. Böck und J. Hammer, 7th Symposium on Safeguards and Nuclear Material Management, Liege, Belgium, 21 - 23 May 1985
8. "The Status of the Laser Surveillance System", K. Thomsen, W. Pflügl, H. Böck und J. Hammer, INMM Meeting, Albuquerque, New Mexico, July 1985
9. "Der Einsatz von Lasern zur Überwachung von Kernbrennstoffen", K. Thomsen, W. Pflügl, H. Böck und J. Hammer, Österreichische Physikertagung 1985, 23. - 26. Sept. 1985, Wien
10. "Laserüberwachungssystem für Brennelementlagerbecken", K. Thomsen, W. Pflügl, H. Böck und J. Hammer, 4. Österreichische Wissenschaftsmesse 3. - 6. Juni 1985, Wien
11. "The Laser Surveillance System for Spent Fuel Pools", J. Hammer, H. Böck, G. Zugarek und K. Thomsen, International Symposium on Recent Advances in Nuclear Material Safeguards, Vienna, Austria, 10 - 14 November 1986
12. "Second Generation Prototype Laser Surveillance System", J. Hammer, H. Böck, G. Zugarek und K. Thomsen, Progress Report IAEA Research Contract 4279/RB, October 1986
13. "Erprobung des Laser-Überwachungssystems für abgebrannte Brennelemente im KKW Paks/Ungarn", K. Thomsen, H. Böck, G und J. Hammer, Jahrestagung Kerntechnik 1987, Karlsruhe, 2. - 4. Juni 1987
14. "First Interim Report on LASSY Development at JRC Ispra“, K. Thomsen, C. Morandi, F. Sorel und J. Hammer, 1 July until 1 December 1987
15. "Final Report on LASSY Development at JRC Ispra, First Stage: July 1987 until May 1988", K. Thomsen
16. "Preliminary Technical Characteristics of LASSY Eye / Measurement Electronics", K. Thomsen, report to IAEA Advisory Group Meeting on Containment and Surveillance, November 1988, Vienna
17. "Contract between IAEA and Ispra, Interim Report of Stage Two, 1 July 1988 - 31 December 1988", Knud Thomsen
18. "Laser Surveillance System - The Engineered Prototype LASSY", K. Thomsen, C. Morandi, F. Sorel und J. Hammer, paper presented at ESARDA meeting, 30 May - 1 June 1989, Luxemburg
19. "Final Report on LASSY Development at JRC Ispra, Second Stage: June 1988 until June 1989", K. Thomsen

20. "Comprehensive Report on LASSY Development July 1987 until September 1989", K. Thomsen, Contract No. 3198-87-06 ED ISP A
21. "Laser Surveillance System (LASSY)", K. Thomsen, final report for Research Contract 4273/R4/RB, AIAU 91303, June 1991
22. „The High-Throughput X-Ray Spectroscopy Mission XMM“, K. Thomsen, PSI Project Plan for the RGS-CCD-System, October 1989
23. "EUV-Detector Array EUVITA on the Spectrum-Röntgen-Gamma Platform", R. Henneck et al, paper presented at SPIE's International Symposium on Optical & Optoelectronic Applied Science & Engineering, 8 - 13 July 1990, San Diego, USA
24. "Spectroscopic Investigations with a Reflection Grating Spectrometer", A.C. Brinkman et al, paper presented at SPIE's International Symposium on Optical & Optoelectronic Applied Science & Engineering, 8 - 13 July 1990, San Diego, USA
25. "Compound Radiator", K. Thomsen, 4th European Symposium on Space Environmental Control Systems, Florence, Italy, 21 - 25 October 1991, ESA SP-324, Dec. 1991
26. "Emissivity Measurements on Space Relevant Coatings", K. Thomsen, J.A. Konter, G. Heidenreich, R. Henneck, K. Skala, A. Zehnder, paper presented at the 22nd International Conference on Environmental Systems, Seattle, Washington, July 13 - 16,1992
27. "XMM-RGS Cryogenic Detector Housing", K. Thomsen, G. Heidenreich, paper presented at the 24th International Conference on Environmental Systems, Friedrichshafen, Germany, June 20 - 23, 1994
28. "The Reflection Grating Spectrometer onboard the ESA XMM mission", A.C. Brinkman et al, SPIE conference in Garmisch Partenkirchen 1994
29. "The Reflection Grating Spectrometer (RGS) on-board the X-Ray Multi-Mirror (XMM) Mission", G. Branduardi-Raymont, H.J.M. Aarts, A.J. den Boggende, A.C. Brinkman, L. Dubbeldam. J.W. den Herder, J.S. Kaastra, P.A. de Korte, R. Mewe, C.J. Hailey, S.M. Kahn, F. Parels, J. Bixler, K. Thomsen, A. Zehnder, Proceedings of the International Symposium on X-ray Astronomy, March 11 -14, 1996, Tokyo, Japan
30. "The Reflection grating spectrometer on-board of XMM", A.C. Boggende, H.J.M. Aarts, A.J.F. den Boggende, T. Bootsma, L. Dubbeldam, J.W. den Herde, J.S. Kaastra, P.A.J. de Korte, B.J. van Leeuwen, R. Mewe, E. van Zwet, T. Decker, C.J. Hailey, S.M. Kahn, F. Paerels, S. Pratuch, A. Rasmussen, G. Branduardi-Raymont, P. Guttridge, J. Bixler, K. Thomsen, A. Zehnder, C. Erd, SPIE conference 7 - 9 August, 1996, Denver, Colorado USA
31. "X-ray spectroscopy with the reflection grating spectrometer on-board of XMM", A.C. Brinkman et al, Proc. International Conference of X-Ray Astronomy and Astrophysics, Röntgen-Strahlung from the Universe; MPE Report 263, 1996
32. "Thermal qualification of the XMM-RGS camera head and cooling system“, K. Thomsen. 6th European Symposium on space Environmental Control Systems, Noordwijk, NL, 20 - 22 May, 1997, ESA SP-400, Aug. 1997
33. "The reflection grating spectrometer on board XMM“, A.C. Brinkman et al, Proc. of the First XMM Workshop, Ed. M. Dahlem (1998), Noordwijk, The Netherlands, Sept. 30 - Oct. 2, 1998
34. "The High Energy Solar Spectroscopic Imager (HESSI) Small Explorer mission for the next (2000) solar maximum“, R.P. Lin and the HESSI Team, SPIE Conference, Denver 1999
35. „The Solar Aspect System (SAS) for the High Energy Solar Spectroscopic Imager HESSI“, R. Henneck, J. Bialkowski, F. Burri, M. Fivian, W. Hajdas, A. Mchedlishvili, P. Ming, K. Thomsen,

J. Welte, A. Zehnder, B.R. Dennis, G. Hurford, C. Curtis und D. Pankow, SPIE Conference, Denver 1999, Vol. 3765-24

36. „The Roll Angle System (RAS) for the High Energy Solar Spectroscopic Imager HESSI“, R. Henneck, J. Bialkowski, F. Burri, M. Fivian, W. Hajdas, A. Mchedlishvili, P. Ming, K. Thomsen, J. Welte, A. Zehnder, B.R. Dennis, G. Hurford, C. Curtis und D. Pankow, SPIE Conference, Denver 1999, Vol. 3765-54
37. „Component Total Dose and Single Event Testing for the HESSI RAS and SAS Modules“, W. Hajdas, J. Bialkowski, A. Mchedlishvili, R. Henneck, K. Thomsen und A. Zehnder, Nuclear and Space Radiation Effects Conference NSREC‘99, Norfolk VA, USA, 1999
38. „First steps towards small arrays of Mo/Au microcalorimeters“, J. Olsen, E.C. Kirk, K. Thomsen, B. van den Brandt, Ph. Lerch, L. Scandella, A. Zehnder, S. Mango, H.R. Ott, M. Huber, G.C. Hilton, und J.M. Martinis, Nuclear Instruments and Methods in Physics Research A 444, 253-256, 2000
39. „Force Limited Vibration Test of HESSI Imager“, D. Amato, D. Pankow, K. Thomsen, ICSV7, Garmisch-Partenkirchen, Germany, July 4-7, 2000; V-2527
40. „Calibrating the imaging system of the high-energy solar spectroscopic imager (HESSI)“, K. Thomsen, J. Bialkowski, F. Burri, M. Fivian, W. Hajdas, A. Mchedlishvili, P. Ming, J. Welte, A. Zehnder, and the HESSI Team, SPIE Conference, Munich 2000, SPIE Proc. 4012, 524, 2000
41. „Calibrating the aspect systems of the high-energy solar spectroscopic imager (HESSI)“, M. Fivian, J. Bialkowski, W. Hajdas, R. Henneck, A. Mchedlishvili, P. Ming, K. Thomsen, A. Zehnder, G. Hurford, D. Curtis, D. Pankow, SPIE Conference, Munich 2000, SPIE Proc. 4012, 518, 2000
42. „The Cyclone Hard X-Ray Observatory“, St.E. Boggs, R.P. Lin, R.R. Dennis, N.W. Maddan, P. von Ballmoos, K. Thomsen, G.H. Hurford, K.C. Hurley, D.M. Smith, P. Jean, J. Knödlseder und R.M. Millan, SPIE Proc. 4110, 166, 2000
43. „In-flight calibration of the XMM-Newton reflection grating spectrometers“, C. Erd, M. Audard, A.J. den Boggende, G. Branduardi-Raymont, A.C. Brinkman, J. Cottam, L. Dubbeldam, M. Güdel, J.W. den Herder, J.S. Kaastra, S.M. Kahn, R. Mewe, F.B. Paerels, J.R. Peterson, A.P. Rasmussen, I. Sakelliou, J. Spodek, K. Thomsen, C. de Vries, A. Zehnder, SPIE Proc. 4110, 13, 2000
44. „Description and performance of the reflection grating spectrometer on board of XMM-Newton“, J.W. den Herder, G. Branduardi-Raymont, A.C. Brinkman, J. Cottam, A.J. den Boggende, L. Dubbeldam, C. Erd, M. Güdel, J.S. Kaastra, S.M. Kahn, R. Mewe, F.B. Paerels, I. Sakelliou, A.P. Rasmussen, J. Spodek, K. Thomsen, C.P. de Vries, SPIE Proc. 4012, 102, 2000
45. „Experimental study of space proton environment effects on HESSI detector background“, W. Hajdas, N. Frey, O. Morath, K. Thomsen, A. Zehnder, and W. Wittwer, Nuclear and Space Radiation Effects Conference NSREC, Reno, USA, 2000
46. „High-resolution X-ray spectroscopy of Zeta Puppis and Eta Carinae with the RGS on XMM“, M.A. Leutenegger, M. Audard, E. Behar, A.J. den Boggende, A.C. Brinkman, G. Branduardi-Raymont, J. Cottam, C. Erd, C. Ferrigno, M. Güdel, J.W. den Herder, J.S. Kaastra, S.M. Kahn, M. Magee, R. Mewe, F.B.S. Paerels, R. Pallavicini, J.R. Peterson, A.P. Rasmussen, G. Rauw, M. Sako, T. Tamura, I. Sakelliou, K. Thomsen, C. de Vries, 2000 Meeting of the AAS High Energy Astrophysics Division, Honolulu, USA, November 5 - 10, 2000, AAS Bulletin 32 (3), 42.01

47. „X-ray spectroscopy of clusters of galaxies with XMM-Newton“, J.R. Peterson, M. Audard, E. Behar, A.J. den Boggende, A.C. Brinkman, G. Branduardi-Raymont, J. Cottam, C. Erd, C. Ferrigno, M. Güdel, J.W. den Herder, J.G. Jernigan, J.S. Kaastra, S.M. Kahn, R. Mewe, F.B.S. Paerels, A.P. Rasmussen, M. Sako, T. Tamura, I. Sakelliou, K. Thomsen, C. de Vries, 2000 Meeting of the AAS High Energy Astrophysics Division, Honolulu, USA, November 5 - 10, 2000, AAS Bulletin 32 (3), 13.22
48. „XMM/RGS high-resolution spectroscopy of the Magellanic-Cloud supernova remnant sample: 1E0102-72.3 an the others“, A.P. Rasmussen, M. Audard, E. Behar, J.A.M. Bleeker, A.J. den Boggende, G. Branduardi-Raymont, A.C Brinkman, J. Cottam, L. Dubbeldam, C. Erd, M. Güdel, J.M. den Herder, J.S. Kaastra, S.M. Kahn, R. Mewe, F.B.S. Paerels, J.R. Peterson, C.P. de Vries, I. Sakelliou, K. Thomsen, A. Zehnder, X-Ray Astronomy 2000, Palermo, Italy, September 4 - 8, 2000
49. „XMM-Newton observation of the complex absorbing medium in IRAS 13349+2438“, M. Sako, M. Audard, E. Behar, A.J. den Boggende, Th. Boller, G. Branduardi-Raymont, A.C. Brinkman, J. Cottam, C. Erd, C. Ferrigno, M. Güdel, J.W. den Herder, J.S. Kaastra, S.M. Kahn, A. Lagostina, R. Mewe, F.B.S. Paerels, J.R. Peterson, M. Pierre, E.M. Puchnarewicz, A.P. Rasmussen, T. Tamura, I. Sakelliou, K. Thomsen C.P. de Vries, 2000 Meeting of the AAS High Energy Astrophysics Division, Honolulu, USA, November 5 - 10, 2000, AAS Bulletin 32 (3), 2.03
50. „The Reflection Grating Spectrometer on board XMM-Newton“, J.W. den Herder, A.C. Brinkman, S.M. Kahn, G. Branduardi-Raymont, K. Thomsen, H. Aarts, M. Audard, J.V. Bixler, A.J. den Boggende, J. Cottam, T. Decker, L. Dubbeldam, C. Erd, H. Goulooze, M. Güdel, P. Guttridge, C.J. Hailey, K. Al Janabi, J.S. Kaastra, P.A.J. de Korte, B.J. van Leeuwen, D. Muche, A.J. McCalden, R. Mewe, A. Naber, F.B. Paerels, J.R. Peterson, A.P. Rasmussen, K. Rees, I. Sakelliou, M. Sako, J. Spodek, M. Stern, T. Tamura, J. Tandy, C.P. de Vries, S. Welch und A. Zehnder, Astronomy and Astrophysics 365, L7-L17, 2001, https://doi.org/10.1051/0004-6361:20000058
51. „Sabbatical für Kantonsschullehrer am PSI, ein Pilotversuch am Labor für Astrophysik“, R. Eichler, R. Wehrli und K. Thomsen, PSI Bericht Nr. 01-06, Juni 2001.
52. „The Megapie Target - A Challenge for Materials“, F. Gröschel, A. Cadiou, T. Dury, Y. Foucher, T. Kirchner, J. C. Klein, J. Knebel, B. Sigg, B. Smith, K. Thomsen, and A Zucchini, 5th Workshop on Spallation Materials Technology. IWSMT-5, Charleston, USA, 19-24 May, 2002.
53. „MEGAPIE Project - An Update“, F. Gröschel, C. Fazio, T. Kirchner, J. Knebel, G. Laffont, K. Thomsen, and K. Woloshun, 7th Information Exchange Meeting on P&T, Jeju, Korea, 14-16 Oct. 2002.
54. „The Reuven Ramaty High-Energy Solar Spectroscopic Imager RHESSI“, R.P. Lin, B.R. Dennis, G.J. Hurford, D.M. Smith, A. Zehnder, P.R. Harvey, D.W. Curtis, D. Pankov, P. Turin, M. Bester, A. Csillaghy, M. Lewis, N. Madden, H.F. van Beek, M. Appleby, T. Raudorf, J. McTiernan, R. Ramaty, E. Schmahl, R. Schwartz, S. Krucker, R. Abiad, T. Quinn,, P. Berg, M. Hashii, R. Sterling, R. Jackson,, R. Pratt, R.D. Campbell, D. Malone, D. Landis, C.P. Barrington-Leigh, S. Slassi-Sennou, C. Cork, D. Clark, D. Amato,, L. Orwig, R. Boyle, I.S. Banks, K. Shirley, A.K. Tolbert, D. Zarro, F. Snow, K. Thomsen, R. Henneck, A. Mchedlishvili, P. Ming, M. Fivian, J. Jordan, R. Wanner, J. Chrubb, J. Preble, M. Matranga, A. Benz, H. Hudson, R.C. Canfield, G.D. Holman, C. Crannell, T. Kosugi, A.G. Emslie, N. Vilmer, J.C.

Brown, C. Johns-Krull, M. Aschwanden, T. Metcalf and A. Conway, Solar Physics, 210, 3-32, November 2002, https://doi.org/10.1023/A:1022428818870

55. „RHESSI imager and aspect systems“, A. Zehnder, J. Bialkowski, F. Burri, R. Henneck, A. Mchedlishvili, P. Ming, J. Welte, K. Thomsen, D. Clark, B. R. Dennis, G. J. Hurford, D. W. Curtis, P. R. Harvey, and D. H. Pankow, in Innovative Telescopes and Instrumentation for Solar Astrophysics, edited by Stephen L. Keil and Sergey V. Avakyan, Proceedings of the SPIE, Volume 4853, 41-59, 2003.
56. “Astronomical Telescopes and Instrumentation”, A. Zehnder, J. Bialkowski, F. Burri, M. Fivian, R. Henneck, A. Mchedlishvili, P. Ming, J. Welte, K. Thomsen, D. Clark, B. R. Dennis, Gordon J. Hurford, D. W. Curtis, P. R. Harvey, D. H. Pankow, 2003.
57. „In-orbit Performance of the Cooling Systems for the X-Ray Instruments on XMM-NEWTON“, K. Thomsen, H. Mapson-Menard, J. Fauste, S. Djavidnia, B. Olabarri, J.W. den Herder, ICES 33, Vancouver, 7-10 July, 2003.
58. „The Megapie Target System, Concepts to Contain and Handle its Radioactive Inventory“, F. Gröschel, G. Corsini, T. Kirchner, Ch. Perret, B. Sigg, K. Thomsen, W. Wagner, ICANS - XVI, Düsseldorf-Neuss, 12-15 May, 2003.
59. „Final Design, Performance Estimation and Safety Analysis of the MEGAPIE Target System“, F. Gröschel, L. Cachon, A. Cadiou, T. Dury, C. Fazio, T. Kirchner, R. Stieglitz, G. Laffont, K. Thomsen, A. Zucchini, P&T and ADS`2003, Mol, 6-8 Oct., 2003.
60. „The Reuven Ramaty High-Energy Solar Spectroscopic Imager RHESSI“, R.P. Lin, B.R. Dennis, G.J. Hurford, D.M. Smith, A. Zehnder, P.R. Harvey, D.W. Curtis, D. Pankov, P. Turin, M. Bester, A. Csillaghy, M. Lewis, N. Madden, H.F. van Beek, M. Appleby, T. Raudorf, J. McTiernan, R. Ramaty, E. Schmahl, R. Schwartz, S. Krucker, R. Abiad, T. Quinn,, P. Berg, M. Hashii, R. Sterling, R. Jackson,, R. Pratt, R.D. Campbell, D. Malone, D. Landis, C.P. Barrington-Leigh, S. Slassi-Sennou, C. Cork, D. Clark, D. Amato,, L. Orwig, R. Boyle, I.S. Banks, K. Shirley, A.K. Tolbert, D. Zarro, F. Snow, K. Thomsen, R. Henneck, A. Mchedlishvili, P. Ming, M. Fivian, J. Jordan, R. Wanner, J. Chrubb, J. Preble, M. Matranga, A. Benz, H. Hudson, R.C. Canfield, G.D. Holman, C. Crannell, T. Kosugi, A.G. Emslie, N. Vilmer, J.C. Brown, C. Johns-Krull, M. Aschwanden, T. Metcalf and A. Conway, in The Reuven Ramaty High-Energy Solar Spectroscopic Imager RHESSI - Mission Description and Early Results, R.P.Lin, B.R.Dennis and A. Benz (Eds.), Kluwer Academic Publishers, Dordrecht, Bosten, London, 2003.
61. “MEGAPIE Target Scientific Design Support”, F. Gröschel, P. Agostini, M. Dierckx, C. Fazio, T. Kirchner, K. Kurata, Ch. Latgé, T. Song, K. Thomsen, and K. Woloshun, 8th Information Exchange Meeting on Actinide and Fission Product Partitioning and Transmutation, Las Vegas, USA, 9-11 Nov. 2004.
62. "Beam Diagnostics at the High Power Proton Beam Lines and Targets at PSI", R. Dölling, R. Rezzonico, P.-A. Duperrex, U. Rohrer, K. Thomsen, E. Erne, U. Frei, M. Graf, U. Müller, DIPAC05, 7th European Workshop on Beam Diagnostics and Instrumentation for Particle Accelerators, Hosted by CERN, 6-8 June, Lyon, France, 2005.
63. “Bearing-less Gyroscopes”, K. Thomsen, Symposium Gyro Technology, Stuttgart, Germany, 2005.
64. "Mitigation of cavitation effects by means of gas bubbles on a surface", K. Thomsen. Journal of Nuclear Materials, Volume 356, Issues 1-3, Pages 321-324, 2006.

65. "MEGAPIE at SINQ - the First Liquid Metal Target Driven by a Magawatt Class Proton Beam", W. Wagner, F. Gröschel, H. Heyck. K. Thomsen, IWSMT-8 proceedings (Taos, NM), 2006.
66. "The MEGAPIE Project Status Update – High Power Liquid Metal Spallation Target", F. Gröschel, A. Cadiou, S. Dementjev, M. Dubs, C. Fazio, T. Kirchner, Ch. Latge, P. Ming, K. Thomsen and W. Wagner, , Proc. ICANS-XVII , International Collaboration on Advanced Neutron Sources, Santa Fe, NM, LA-UR-06-3904, 590, 2006.
67. "VIMOS, a Novel Visual Device for Near-Target Beam Diagnostics", K. Thomsen, Proc. ICANS-XVII , International Collaboration on Advanced Neutron Sources, Santa Fe, NM, LA-UR-06-3904, 374. 2006.
68. "Liquid Metal Leak Detection in the MEGAPIE Target", K. Thomsen, ICANS-XVIII, 18th Meeting of the International Collaboration on Advanced Neutron Sources, April 26-29, Dongguan City, China, 2007.
69. "Experience with VIMOS during the irradiation phase of MEGAPIE", K. Thomsen, ICANS-XVIII, 18th Meeting of the International Collaboration on Advanced Neutron Sources, April 26-29, Dongguan City, China, 2007.
70. "A Dedicated Beam Interrupt System for the Safe Operation of the MEGAPIE Liquid Metal Target", K. Thomsen, P. Schmelzbach, HPPA5, 6-9 May, Mol, Belgium, 2007.
71. "VIMOS, near-target beam diagnostics for MEGAPIE", K. Thomsen, NIMA 347-352, 2007, https://doi.org/10.1016/j.nima.2007.03.011
72. "A compound target concept for pulsed spallation sources", K. Thomsen, NIMA 1597-1599, 2007, https://doi.org/10.1016/j.nima.2007.07.061
73. "Influence of beam foot print on neutron production in SINQ", K. Thomsen, Procedings of the 3rd High Power Targetry Workshop, Bad Zurzach - Switzerland, September 2007.
74. "Helium cooled target for neutron production at SINQ", K. Thomsen, Procedings of the 3rd High Power Targetry Workshop, Bad Zurzach - Switzerland, September 2007.
75. „Advanced on-Target Beam Monitoring for Spallation Sources", K. Thomsen, Procedings of the 3rd High Power Targetry Workshop, Bad Zurzach - Switzerland, September 2007.
76. "MEGAPIE spallation target: Irradiation of the First Prototypical Spallation Target for Future ADS", Ch. Latge, G. Laffont, F. Groeschel, K. Thomsen, W. Wagner, P. Agostini, M. Dierckx, C. Fazio, A. Guertin, Y. Kurata, T. Song, K. Woloshun, Proceedings of GLOBAL 2007 conference on advanced nuclear fuel cycles and systems, Boise - Idaho (United States), 2007.
77. "Scoping-level Probabilistic Safety Assessment of a complex experimental facility: Challenges and first results from the application to a neutron source facility (MEGAPIE)", L. Podofillini, V.N. Dang, K. Thomsen, Nuclear Engineering and Design 238, 2726-2738, 2008, https://doi.org/10.1016/j.nucengdes.2008.03.020
78. "The MEGAPIE-TEST project: Supporting research and lessons learned in first-of-a-kind spallation target technology", C. Fazio, F. Gröschel, W. Wagner, K. Thomsen, B.L. Smith, R. Stieglitz, L. Zanini, A. Guertin, A. Cadiou, J. Henry, P. Agostini, Y. Dai, H. Heyck, S. Dementjev, S. Panebianco, A. Almazouzi, J. Eikenberg, A. Letourneau, J.C. Toussaint, A. Janett, Ch. Perret, S. Joray, J. Patorski, W. Leung, P. Meloni, P. Turroni, A. Zucchini, G. Benamati, J. Konys, T. Auger, A. Gessi, D. Gorse, I. Serre, A. Terlain, J.-B. Vogt, A. Batta, A. Class, X. Cheng, F. Fellmoser, M. Daubner, S. Gnieser, G. Grötzbach, R. Milenkovic, C. Latgé,

J.U. Knebel, Nuclear Engineering and Design, Volume 238, Issue 6, pp. 1471-1495, 2008, https://doi.org/10.1016/j.nucengdes.2007.11.006

79. "MEGAPIE at SINQ – The first liquid metal target driven by a megawatt class proton beam", W. Wagner, F. Gröschel, K. Thomsen, H. Heyck, Journal of Nuclear Materials, Volume 377, Issue 1, Pages 12-16, 2008.
80. "Liquid metal leak detection for spallation neutron sources", K. Thomsen, NIMA 476-482, 2008, https://doi.org/10.1016/j.nima.2008.03.115
81. "Observed changes in electrical materials properties of ZrO2 in Megapie leak detectors during irradiation", K. Thomsen, IWSMT-9, October 19-24, Sapporo, Japan, 2008.
82. “Visual Monitor for Near-Target Beam Diagnostics”, K. Thomsen, PAC09, 4-8 May, Vancouver, BC, Canada, 2009.
83. “VIMOS, Beam Monitoring for SINQ”, K. Thomsen, DIPAC09. 25-27 May, Basel, Switzerland, 2009.
84. "Advanced on-target beam monitoring for spallation sources", K. Thomsen, NIMA 600, 38-40, 2009.
85. "Wavelet analysis of experimental results for coupled structural–hydraulic behavior of the EURISOL target mock-up", R.Ž. Milenković, S. Dementjevs, K. Samec, A. Flerov, K. Thomsen, NIMA 608, 175-182, 2009.
86. "Structural-hydraulic test of the liquid metal EURISOL target mock-up", R.Ž. Milenković, S. Dementjevs, K. Samec, E. Platacis, A. Zik, A. Flerov, E. Manfrin, K. Thomsen, NIMA 279-292, 2009.
87. “The PSI ultra-cold neutron source”, A. Anghel, F. Atchison, B. Blau, B. van den Brandt, M. Daum, R. Doelling, M. Dubs, P.-A. Duperrex, A. Fuchs, D. George, L. Gültl, P. Hautle, G. Heidenreich, F. Heinrich, R. Henneck, S. Heule, Th. Hofmann, St. Joray, M. Kasprzak, K. Kirch, A. Knecht, J.A. Konter, T. Korhonen, M. Kuzniak, B. Lauss, A. Mezger, A. Mtchedlishvili, G. Petzoldt, A. Pichlmaier, D. Reggiani, R. Reiser, U. Rohrer, M. Seidel, H. Spitzer, K. Thomsen, W. Wagner, M. Wohlmuther, G. Zsigmond, J. Zuellig, K. Bodek, S. Kistryn, J. Zejma, P. Geltenbort, C. Plonka, S. Grigoriev, NIMA 272-275, 2009, https://doi.org/10.1016/j.nima.2009.07.077
88. “Pressure Measurement Based on Thermocouples”, K. Thomsen, ANIMMA2009, Marseille, June 7-10, 2009, https://doi.org/10.1109/ANIMMA.2009.5503803
89. “Pressure Measurement Based on Thermocouples”, K. Thomsen, IEE Trans. Nucl. Sc. 57, 3694-3700, 2010, https://doi.org/10.1109/TNS.2010.2070077
90. "Status and development of the swiss spallation neutron sources SINQ & UCN", W. Wagner, B. Blau, H. Heyck, E. Lehmann, K. Thomsen and M. Wohlmuther, ICANS XIX, Grindelwald, March 8-12, 2010.
91. "Effects of the beam footprint on the neutron yield in SINQ", L. Zanini, F. Carinci, D. Reggiani, K. Thomsen, M. Wohlmuther, ICANS XIX, Grindelwald, March 8-12, 2010.
92. “Neutronic and nuclear calculations for the Pb/Au target options for ESS”, L. Zanini, F. Carinci, K. Thomsen, ICANS XIX, Grindelwald, March 8-12, 2010.
93. "Observed changes in electrical materials properties of ZrO2 in Megapie leak detectors during irradiation", K. Thomsen, Journal of Nuclear Materials, Volume 398, Issues 1-3, Pages 232-237, 2010, https://doi.org/10.1016/j.jnucmat.2009.10.037
94. "Lead Gold Eutectics, a potential material for Liquid spallation targets", R. Moormann, M. Medarde, E. Platacis and K. Thomsen, Proceedings of the International Workshop of

Technology and Components of Accelerator Driven Systems, Karlsruhe, Germany, 15-17 March 2010.

95. “PSI’s Experience with High-Power Target Design and Operations”, W. Wagner, M. Wohlmuther, L. Zanini, S. Dementjev, K. Thomsen, Proceedings of the International Workshop of Technology and Components of Accelerator Driven Systems, Karlsruhe, Germany, 15-17 March 2010.
96. “Experience with a first LGE loop and proposal for further investigations in flowing LGE”, K. Thomsen, E. Platacis, O. Lielausis, I. Bucenieks, A. Ziks, A. Romančuks, K. Kravalis, L. Buligins, R. Moormann, 10th International Workshop on Spallation Materials Technology (IWSMT-10), Beijing, China, Workshop on Spallation Materials Technology, 18-22 October, 2010.
97. „Lead Gold Eutectic, First Steps towards the Qualification of a Novel Target Material for ESS“, K. Thomsen, K. Conder, Y. Dai, D. Kiselev, M. Medarde, R. Moormann, E. Platacis, E. Pomjakushina, S. Török, L. Zanini, P. Zimmermann, Lead Gold Eutectic, Icans XIX, March 2010.
98. "Preliminary investigations on the compatibility of liquid lead-gold eutectic with T91 and SS316LN steels", Y. Dai, W. Gao, E. Platacis, K. Thomsen, R. Moormann, IWSMT-10, October 18-22, Beijing, China, 2010.
99. "A Case for a SINQ-type Cannelloni Target at the ESS Power Level", K. Thomsen, M. Butzek, F. Gallmeier, F. Heinrich and J. Wolters, NIMA 625, 5-10, 2011, https://doi.org/10.1016/j.nima.2010.10.017
100. "Lead–gold eutectic: An alternative liquid target material candidate for high power spallation neutron sources", M. Medarde, R. Moormann, R. Frison, R.J. Puz´niak, E. Pomjakushina, K. Conder, E. Platacis, Y. Dai, D. Kiselev, L. Zanini, S. Török, P. Zagyvai, S. Heinitz, J. Neuhausen, D. Schumann, K. Thomsen, Journal of Nuclear Materials 411, 72–82, 2011.
101. "Options for water cooling a SINQ-type cannelloni target at high power", K. Thomsen, M. Butzek, F. Gallmeier and J. Wolters, AccApp’11, Knoxville, April 2011.
102. "The Beam Safety Systems of the PSI UCN Source", B. Blarer, G. Dzieglewski, P.A. Duperrex, F. Heinrich, A. Mezger, D. Reggiani, U. Rohrer, K. Thomsen, M. Wohlmuther, DIPAC2011, May 16-18, Hamburg, Germany, 2011.
103. "Experience from the post-test analysis of MEGAPIE", L. Zanini, S. Dementjev, F. Gröschel, W. Leung, R. Milenkovic, K. Thomsen, W. Wagner, M. Wohlmuther, Xu Cheng, A. Class, A. Konobeyev, P. Agostini, P. Meloni, J.-C. David, A. Letourneau, S. Leray, S. Panebianco, L. Cachon, C. Latgé, P. Roubin, A. Guertin, N. Thiolliere, M. Dierckx, Journal of Nuclear Materials, Volume 415, 367-377, 2011, https://doi.org/10.1016/j.jnucmat.2011.04.037
104. "Technical issues for Cannelloni at High Power", K. Thomsen, F. Heinrich, M. Butzek, J. Wolters, F. Sordo, A.I.S. Holm, 4th HPTW, Malmö, Sweden, May 2011.
105. “Water cold plate proposal for solid rotating target”, M. Magan, S. Terrón, K. Thomsen, F. Sordo, C. Kharoua , M. Perlado, J. Bermejo, 4th HPTW, Malmö, Sweden, May 2011.
106. "Handling of Target Anomalies at SINQ", W. Wagner, K. Thomsen, H. Heyck, M. Wohlmuther, P. Vontobel, 4th HPTW, Malmö, Sweden, May 2011.
107. "Neutron performance analysis for ESS target proposal", M. Magan, S. Terron, K. Thomsen, F. Sordo, J.M. Perlado, and J. Bermejo, NIMA 680, 61-68, 2012, https://doi.org/10.1016/j.nima.2012.03.036

108. "Some technical issues for a cannelloni spallation-target at high power", K. Thomsen, F. Heinrich, M. Butzek, J. Wolters, F. Sordo, A.I.S. Holm, NIMA 682, 42-48, 2012, https://doi.org/10.1016/j.nima.2012.04.009
109. "Containment as a prime design goal for neutron spallation sources", K. Thomsen, F. Heinrich, K. Geissmann, W. Wagner, ICANS XX, Bariloche, 4-8 March, 2012.
110. "Operation experience with the SINQ heavy water cooling system", ICANS XX, Bariloche, 4-8 March, 2012.
111. "A comparative study on the compatibility of liquid lead–gold eutectic and liquid lead–bismuth eutectic with T91 and SS 316LN steels", Y. Dai, W. Gao, T. Zhang, E. Platacis, S. Heinitz, K. Thomsen, Journal of Nuclear Materials 431, 113-119, 2012, https://doi.org/10.1016/j.jnucmat.2012.04.015
112. "VIMOS, New Capabilities for an Optical Safety System", K. Thomsen, J. Devlaminick, IBIC2012, Tsukubua, Japan, 1-4 Oct. 2012.
113. "Conceptual design of the beryllium rotating target for the ESS-Bilbao facility", S. Terrón, F. Sordo, M. Magán, A. Ghiglino, F. Martínez, P.J. de Vicente, R. Vivanco, K. Thomsen, J.M. Perlado, F.J. Bermejo, A. Abánades, NIMA 724, 34-40, 2013.
114. "A comparison between the chemical behaviour of lead-gold and lead-bismuth eutectics towards 316L stainless steel", S. Heinitz, D. Schumann, J. Neuhausen, K. Thomsen, E. Platacis, O. Lielausis, I. Bucenieks, A. Zik, K. Kravalis, L. Buligins, Radiochimica Acta 1, 1-13, 2013, https://doi.org/10.1524/ract.2013.2063
115. "VIMOS, New Experience with a Dedicated Optical Safety System", K. Thomsen, 5th High Power Targetry Workshop, Fermi Nat. Lab., Batavia, USA, May 20 – 23, 2014.
116. "Internal geometry and coolant choices for solid high power neutron spallation targets", L. Buligins, K. Thomsen, O. Lielausis, E. Platacis, A. Poznaks, NIMA 761, 58-68, 2014, https://doi.org/10.1016/j.nima.2014.05.076
117. "Target Cooling Options for Neutron Sources at High Power Densities", K. Thomsen, L. Buligins, M. Butzek, G. Heidenreich, F. Heinrich, M. Magán, E. Pitcher, Physics Procedia, Volume 60, Pages 83-90, 2014.
118. "Conceptual Proposal for Compound Moderators with Preferential Emission Directions", K. Thomsen, Physics Procedia, Volume 60, Pages 278-293, 2014.
119. "Benchmark experiment on "entry-grooves" in Moderator / reflector material", K. Thomsen, E. Lehmann, A. Kaestner, T. Reiss, ICANS XXI, Mito, Japan, 29 Sept.-3 Oct., 2014.
120. "Observation of the Movement of Inclusions in Liquid Metal", M. Scepanskis, A. Jacovics, K. Thomsen, E. Lehmann, A. Nojarevics, T. Beinerts, V. Geza, 10th World Conference on neutron Radiography, Gindelwald, October 5-10, 2014.
121. "Liquid metal flow induced by counter-rotating permanent magnets in rectangular crucible", M. Ščepanskis, R. Nikoluškins, A. Bojarevičs, T. Beinerts, A. Jakovičs, K. Thomsen, 9th International pamir Conference on Fundamental and Applied MHD, Thermo Acoustic and Space Technologies, Riga, Latvia; 06/2014.
122. "Experimental neutron radiography visualization of dynamics of solid inclusions in liquid metal", M. Ščepanskis, M. Sarma, R. Nikoluškins, K. Thomsen, A. Jakovičs, P. Vontobel, T. Beinerts, A. Bojarevičs, E. Platacis, International Scientific Colloquium on Modelling for Electromagnetic Processing, Hannover, Germany; 09/2014.

123. “A neutron production target for ESS based upon the canned-rods concept”, A. Ghiglino, S. Terrón, K. Thomsen, J. Wolters, M. Magán, F. Martínez, P.J. de Vicente, R. Vivanco, F. Sordo, M. Butzek, J.M. Perlado, F.J. Bermejo, NIMA 756, 73-81, 2014.
124. “On the METAL:LIC target design optimization and failure diagnostics by means of liquid metal loop vibration monitoring”, S. Dementjeves, F. Barbagallo, M. Wohlmuther, K. Thomsen, A. Zik, R. Nikoluskins, 10th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-10), Okinawa, Japan, Dec. 14-18, 2014.
125. “Influence of Surface Structures on the Entry of Neutrons into Moderating Material”, K. Thomsen, T. Reiss, P. Vontobel, Physics Procedia, 69, 10th World Conference on Neutron Radiography, 5-10 October, 2014.
126. “A Report on the First Neutron Radiography Experiments for Dynamic Visualization of Solid Particles in an Intense Liquid Metal Flow”, M. Scepanskis, M. Sarma, R. Nikoluskins, K. Thomsen, A. Jakovics, P. Vontobel, T. Beinerts, A. Bojarevics, E. Platacis, Magnetohydrodynamics Vol. 51, No. 2, pp. 257-265, 2015, https://doi.org/10.22364/mhd.51.2.9
127. “Neutron Radiography Visualization of Solid Particles in Stirring Liquid Metal”, M. Sarma, M. Ščepanskis, A. Jakovics, K. Thomsen, R. Nikoluškins, P. Vontobel, T. Beinerts, A. Bojarevics, E. Platacis, E. Phys. Procedia, 69, 457–463, 2015, https://doi.org/10.1016/j.phpro.2015.07.064
128. “Neutron Imaging for Advanced Diagnostics in Metallurgical Innovations”, K. Thomsen, E. Lehmann, P. Trtik, C. Grünzweig, P. Vontobel, XVIII International UIE-Congress, Hannover, June 6-9, 2017.
129. “Modelling of Rotating Permanent Magnet Induced Liquid Metal Stirring”, V. Dzelme, M. Sarma, A, Jacovics, K. Thomsen, Modelling for materials Processing, Riga, September 21-22, 2017.
130. “Assessment of Electromagnetic Stirrer Agitated Liquid Metal Flows by Dynamic Neutron Radiography”, M. Scepanskis, M. Sarma, P. Vontobel, P. Trtik, K. Thomsen, A. Jakovics, T. Beinerts, Metallurgical and Materials Transactions B, published online 11 January 2017, doi:10.1007/s11663-016-0902-8
131. “Argon bubble flow in liquid gallium in external magnetic field”, M. Birjukovs, V. Dzelme, A. Jakovics, K. Thomsen, P. Trtik, Int. J. Appl. Electromagn. Mech., 63, S51–S57, 2020.
132. “Phase boundary dynamics of bubble flow in a thick liquid metal layer under an applied magnetic field”, M. Birjukovs, D. Dzelme, A. Jakovics, K. Thomsen, P. Trtik, Phys. Rev. Fluids 5, 2020.
133. “Resolving Gas Bubbles Ascending in Liquid Metal from Low-SNR Neutron Radiography Images”, M. Birjukovs, P. Trtik, A. Kaestner, J. Hovind, M. Klevs, D.J. Gawryluk K. Thomsen, A, Jakovics, Applied Science 11, 9710, 2021, https://doi.org/10.3390/app11209710

Cognitive Science

134. ”Beauty and art arise in the brains of beholders”, K. Thomsen, http://cogprints.org/857/, 2000.
135. “A Skeleton for a Mind”, Towards a Science of Consciousness, Copenhagen, Denmark, 17-20 August, 2005.

136. “Emotions in a Self-representational Theory of Consciousness”, Towards a Science of Consciousness, Tucson, USA, 4-8 April, 2006.
137. “The Consumption Analysis Loop in the Ouroboros Model, Basis for the allocation of attention and for the emergence of consciousness”, Towards a Science of Consciousness, Tucson, USA, 8-12 April, 2008.
138. “The Ouroboros Model", BICA 08, Technical Report FS-08-04, Menlo Park, California: AAAI Press, 2008.
139. "Is Quantum Mechanics Needed to Explain Consciousness?", K. Thomsen, Neuroquantology 6(1): 43-45, 2008.
140. “Flow of Activity in the Ouroboros Model”, Knud Thomsen, https://doi.org/10.48550/arXiv.0903.5054
141. “Knowledge as a basis and constraint for the performance of the Ouroboros Model”, Workshop on Knowledge & Performance, Bielefeld, Germany, 29-31 October, 2009.
142. "The Ouroboros Model in the light of venerable criteria", K. Thomsen, Neurocomputing 74, 121-128, 2010, https://doi.org/10.1016/j.neucom.2009.10.031
143. "Concept Formation in the Ouroboros Model", K. Thomsen, Third Conference on Artificial General Intelligence, AGI 2010, Lugano, Switzerland, March 5-8, 2010.
144. "The Ouroboros Model, Selected Facets", K. Thomsen, in: C. Hernández et al. (eds.) From Brains to Systems. New York Dordrecht Heidelberg London: Springer, 239-250, 2011.
145. "Consciousness for the Ouroboros Model", K. Thomsen, Int. Journal of Machine Consciousness 3, 163-175, 2011, https://doi.org/10.1142/S1793843011000662
146. "Cognition According to the Ouroboros Model", K. Thomsen, in: B. Hu et al. (eds.): BI 2011, LNAI 6889, pp. 30–41, Berlin Heidelberg, Springer, 2011.
147. “Ouroboros Model mapped to Brain”, K. Thomsen, 8th IBRO World Congress of Neuroscience, Florence, 14-18 July, 2011.
148. “What Immanuel Kant might have thought about the Ouroboros Model”, K. Thomsen, The Fifth International Conference on Cognitive Science, Kaliningrad, Russia, June 18–24, 2012.
149. “Stupidity and the Ouroboros Model”, K. Thomsen, in: Bach, J., Goertzel, B. and Iklé, M. (Eds.): Artificial General Intelligence, Lecture Notes in Computer Science Vol. 7716, pp. 332–340, Berlin, Heidelberg, Springer, 2012, https://doi.org/10.1007/978-3-642-35506-6_34
150. “The Cerebellum according to the Ouroboros Model, the ‚Interpolator Hypothesis‘”, K. Thomsen, Journal of Communication and Computer 11, 239-254, 2014.
151. "The Ouroboros Model embraces its sensory-motoric foundations", K. Thomsen, Studies in Logic, Grammar and Rhetoric 41:105–125, 2015, https://doi.org/10.1515/slgr-2015-0023
152. “Anticipation as the Central Element for the Efficient Working of Individual Minds and Whole Societies”, First Int. Conf. on Anticipation, Trento, Italy, 5-7 Nov., 2015.
153. “The Hippocampus According to the Ouroboros Model, the ‘Expanding Memory Index Hypothesis’, K. Thomsen, In Proceedings of the IARIA COGNITIVE conference, Athens, Greece, 19–23 February 2017.
154. “Gerecht und tolerant aus Vernunft und Eigeninteresse”, K. Thomsen, Aufklärung & Kritik 62, Okt. 2017.
155. ”ONE Function for the Anterior Cingulate Cortex and General AI: Consistency Curation”, Medical Research Archives 6, Jan. 2018.
156. “It Is Time to Dissolve Old Dichotomies in Order to Grasp the Whole Picture of Cognition”, K. Thomsen, in: Fagan, D., Martín-Vide, C., O'Neill, M., Vega-Rodríguez, M.A. (eds) Theory

and Practice of Natural Computing. TPNC 2018. Lecture Notes in Computer Science, vol 11324. Springer, Cham. https://doi.org/10.1007/978-3-030-04070-3_25

157. "Consciousness, pivot: intuition – emotions, and automatic action – flow, a process view", K. Thomsen, The Science of Consciousness, Interlaken, Switzerland, June 25-28, 2019.
158. "Ethics for Artificial Intelligence, Ethics for All", K. Thomsen, Paladyn. J. Behav. Robot. 2019, 10, 359–363, https://doi.org/10.1515/pjbr-2019-0029
159. "The Ouroboros Model, Proposal for Self-Organizing General Cognition Substantiated", K. Thomsen, *AI* **2021**, *2*(1), 89-105; https://doi.org/10.3390/ai2010007
160. "Efficient Cognition needs Sleep", K. Thomsen, J Sleep Med Disord 7(1): 1120, 2021, https://doi.org/10.47739/2379-0822/1120
161. "AI and We in the Future in the Light of the Ouroboros Model, A Plea for Plurality", K. Thomsen, *AI* **2022**, *3*(4), 778-788; https://doi.org/10.3390/ai3040046
162. "A challenge in A(G)I, cybernetics revived in the Ouroboros Model as one algorithm for all thinking", K. Thomsen, Artif. Intell. Auton. Syst. , 2024, https://doi.org/10.55092/aias20240001

Interpretation of Quantum Mechanics

163. "We just cannot have classical and quantum behavior at the same TIME", K. Thomsen, arXiv:1901,01841, https://doi.org/10.48550/arXiv.1901.01841
164. "Timelessness Strictly inside the Quantum Realm", K. Thomsen, Entropy 23, 2021, 772, https://doi.org/10.3390/e23060772
165. "A heuristic sketch how it could fit together with time", K. Thomsen, arXiv:2405.10335, https://doi.org/10.48550/arXiv.2405.10335

Patent Applications

"Bearingless Gyroscope", K. Thomsen, WO 2004/P03943.

„Protection of Surfaces Against Cavitation Erosion", K. Thomsen, WO 2005/075838 A2.

„Sensor and method for determining the pressure in a fluid", K. Thomsen, No. 08872173.3-1236 PCT/EP2008067897.

"Lead-Gold eutectic as alternative target material in spallation neutron sources", together with R. Moormann, FZ Jülich.