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LIST OF PUBLICATIONS (30 August 2024)

A. PEER-REVIEWED SCIENTIFIC ARTICLES

A1 *Journal article (refereed), original research*

1) V. Kolehmainen, M. Vauhkonen, P. A. Karjalainen and J. P. Kaipio. "Assessment of errors in static electrical impedance tomography with adjacent and trigonometric current patterns". *Physiological Measurement,* Vol. 18, pages 289-303, (1997).
2) Jyrki T. Kuikka, Jean L. Bailieu, Jukka Hiltunen, Christer Halldin, Kim A. Bergström, Lars Ferde, Patrik Emond, Sylvie Chalon, Meixiang Yu, Tomi Laitinen, Jari Karhu, Erkki Tupala, Tero Hallikainen, Ville Kolehmainen, Laurent Mauclaire, Bernard Maziere, Jari Tiihonen, and Denis Guilloteau. "Pharmatokinetics and dosimetry of iodine-123 labelled PE2I in humans, a radioligand for dopamine transporter imaging". *European Journal of Nuclear Medicine*, Vol. 25, pages 531-534, (1998).
3) J. P. Kaipio, V. Kolehmainen, M. Vauhkonen and E. Somersalo. "Inverse problem with structural prior information". *Inverse Problems*, Vol. 15, No. 3, pages 713-729, (1999).
4) V. Kolehmainen, S. R. Arridge, W. R. B. Lionheart, M. Vauhkonen and J. P. Kaipio. "Recovery of region boundaries of piecewise constant coefficients of an elliptic PDE from boundary data ". *Inverse Problems*, Vol. 15, No. 5, pages 1375–1391, (1999).
5) J. P. Kaipio, V. Kolehmainen, E. Somersalo and M. Vauhkonen. "Statistical inversion and Monte Carlo sampling methods in electrical impedance tomography". *Inverse Problems*, Vol. 16, pages 1487-1522, (2000) (In 2014 the manuscript was in the list of 30 most cited papers of the 30 year history of the journal Inverse Problems).
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9) V. Kolehmainen, A. Voutilainen and J. P. Kaipio. "Estimation of non-stationary region boundaries in EIT – State estimation approach". *Inverse Problems*. Vol. 17, pages 1937-1956, (2001)
10) V. Kolehmainen, S. Prince, S. R. Arridge and J. P. Kaipio."A state estimation approach to non-stationary optical tomography problem". *J. Opt. Soc. Am. A.* Vol. 20, pages 876 – 889, (2003).
11) S. Siltanen,V. Kolehmainen, J. P. Kaipio, E. Somersalo, M. Lassas, S. Järvenpää, P. Koistinen and J. Pirttilä. "Statistical inversion for medical X-ray tomography with few radiographs 1: General theory." *Phys. Med. Biol.* Vol. 48, pages 1437 – 1463, (2003).
12) V. Kolehmainen, S. Siltanen, S. Järvenpää, J. P. Kaipio, E. Somersalo, M. Lassas, P. Koistinen and J. Pirttilä. "Statistical inversion for medical X-ray tomography with few radiographs 2: Application to dental radiology." *Phys. Med. Biol.* Vol. 48, pages 1465 – 1490, (2003).
13) S. Prince, V. Kolehmainen, J. P. Kaipio, M. A. Franceschini, D. Boas and S. R. Arridge. "Time series estimation of biological factors in optical diffusion tomography". *Phys. Med. Biol.* Vol. 48, pages 1491 – 1504, (2003).
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39) V. Kolehmainen, M. Schweiger, I. Nissilä, T. Tarvainen, S. R. Arridge and J. P. Kaipio. ”Approximation errors and model reduction in three-dimensional diffuse optical tomography”. *J. Opt. Soc. Am. A.* Vol. 26. Pages 2257-2268 (2009).
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