所属・氏名（保健医療学部　診療放射線学科　氏名：岩元 新一郎）

	著書、学術論文等の名称	単著 共著 の別	発行又は発表 の年月	発行所、発表雑誌 等又は発表学会等 の名称	概　　要
1	(著書)医用放射線技術実験・基礎編	共著	2016 年 2 月	共立出版	本実験書は、診療放射線技師の養成のための医用理工学の基礎実験の手引きである。著者は、本実験書において主に半導体素子の特性に関する基礎実験について執筆した。 田中 仁・山田 勝彦・安部 真治・小田 敍弘編
2	(著書)図解 診療放射線技術実践ガイド第 3 版	共著	2014 年 2 月	文光堂	臨床の現場で活躍する診療放射線技師の実践技術の解説として、第 1 章「放射線診断学」 1.「生態情報を取り出す」の中で、「断層撮影へのアプローチ(CT の原理と特徴)を文筆担当。
3	(筆頭論文)Evaluation of the Accuracy of CT Numbers in Statistical Correction of Nonlinearity for Polychromatic X-ray CT Projection Data	共著	2008 年 8 月	Radiological Physics and Technology Vol.1, No.2, pp.162-170	In this paper, we quantitatively evaluate the improvement of the quality of reconstructed images by our correction method by using a numerical experiment when incident beams are polychromatic. The experimental results show that there is less influence on spatial resolution and that the CT number is hardly dependent on the number of incident photons for a polychromatic beam as well as a monochromatic beam.
4	(筆頭論文)Correction Method of Nonlinearity Due to Logarithm Operation for X-ray CT Projection Data with Noise in Photon-Starved State.	共著	2007 年 9 月	IEICE TRANSACTIONS on Information and Systems, Vol. E90-D No.9, pp.209-215.	In this paper, we propose a new technique for correcting the nonlinearity due to logarithm operation for noisy data by combining the previously presented method and an adaptive filtering method. We quantitatively evaluate the influence of noise on the reconstructed image in the proposed method by the experiment using numerical phantoms. The experimental results show that there is less influence on spatial resolution despite suppressing SA effectively and that CT number are hardly dependent on the number of the incident photons.
5	(教育講演資料) X 線減弱係数の仕分けと医用画像	単著	2015 年 9 月	医用画像情報学会誌 Vol.32 No.3 pp.54-62	A discussion of photon attenuation in matter is given and related to those behaviors to x-ray imaging parameter, especially in the case of tube voltage dependency for polychromatic beam. Simulation studies were carried out to find the optimal tube voltage for the signal-to-noise ratio in projection imaging and computed tomography with polychromatic x-ray source. In addition, material decomposition using dual-energy CT reconstruction is introduced for relating linear attenuation coefficient to tissue composition and structure.