Stanford

Koray Ertan

Research Engineer, Rad/Radiological Sciences Laboratory

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Koray Ertan received his B.Sc. degree in Electrical and Electronics Engineering from Bilkent University, Turkey, where he also completed his Ph.D. under the supervision of Prof. Ergin Atalar. During his doctoral studies, he conducted research at the National Magnetic Resonance Research Center (UMRAM) in Turkey. His dissertation focused on the development of novel magnetic resonance imaging (MRI) technologies, including gradient array systems aimed at improving diagnostic image quality, reducing specific absorption rate (SAR), and shortening scan times.

In April 2019, he joined Prof. Brian Rutt's group at Stanford University as a postdoctoral researcher. Shortly after, in June 2019, he was also appointed as a MINDED postdoctoral fellow. As part of the MINDED program, his research involved developing a system to modulate the permeability of the blood-brain barrier using focused radiofrequency heating from ultra-high field MRI transmit coils, with the goal of enhancing nanomedicine-based treatments for neurodevelopmental disorders.

He is currently a Research Scientist in the Radiological Sciences Laboratory at Stanford. His present work focuses on the design of next-generation head gradient coils and the analysis of peripheral nerve stimulation (PNS) thresholds. He is developing a predictive framework to estimate subject-specific PNS limits using basic demographic data and localizer MRI scans, with the aim of enabling safer and more efficient MRI.

Publications

PUBLICATIONS

- **Macrophage-Like Cell Density and Distribution in Relation to Vascular Leakage in Diabetes.** *Ophthalmology science*
  Ozdemir Zeydanli, E., Bisen, J. B., Heisel, C. J., Ertan, K., Lavine, J. A., Fawzi, A. A.
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- **Association of Macrophage-Like Cells Mapped on Optical Coherence Tomography Angiography with Vascular Leakage on Fluorescein Angiography in Diabetes**
  Zeydanli, E., Bisen, J. B., Heisel, C., Ertan, K., Lavine, J. A., Fawzi, A. A.
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