



IBS Center for Molecular Spectroscopy and Dynamics

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# Seminar

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■ **SPEAKER**

Prof. Kijoon Lee (DGIST)

■ **TITLE**

Biomedical Application of Diffuse Optics (and other topics that interest me)

■ **ABSTRACT**

Diffuse optics deals with photons in diffusive regime. Inside a turbid medium, photons propagate not ballistically but diffusively, as if they do a 3-dimensional random walk with a step size of transport length  $l_t$ . Modelling the photon propagation by photon diffusion equation has enabled functional imaging in deep tissue, although its application is limited due to its poor spatial resolution. In this talk, an overview of diffuse optics and its biomedical application will be presented, including diffuse optical spectroscopy and tomography (DOS/DOT), as well as deep tissue flow monitoring modalities such as diffuse correlation spectroscopy (DCS) and diffuse speckle contrast analysis (DSCA).

Other research interests will be shared with audience as well, if time permits, although they are not necessarily related to biomedical optics. Questions such as “What’s the proper way to teach quantum mechanics to undergraduate students?”, “How can we properly feel the universe around us?” and “What is the best way to visualize musical notes?”, and I hope I can talk at least some of the audience into believing these are actually quite important questions of our lives.

■ **DATE AND VENUE**

Feb. 08, 2022 (Tuesday, 11:00 - 12:00)

Virtual Seminar

■ **LANGUAGE**

Korean

■ **INVITED BY**

Professor Associate Director Wonshik Choi