

# MATHEMATICAL MODELING IN MEDICAL SCIENCES

## : THEORY, COMPUTATION, AND CHALLENGES

8<sup>th</sup> December, Saturday **09:00 - 15:00**

#105 Daewoo Annex Hall, Shinchon Campus, Yonsei University

- 09:00-09:30** **Shinuk Kim, Ph. D.** (Civil Engineering, Sangmyung University)  
**Pathway-based classification and drug-induced pathway interaction**
- 09:30-10:00** **Chi Young Ahn, Ph. D.** (National Institute for Mathematical Sciences)  
**Industrial mathematics in ultrasound imaging**
- 10:00-10:30** **Eun-Jae Park, Ph. D.** (Dep. of Computational Science & Engineering, Yonsei University)  
**Simple and efficient schemes for diffusion equations**
- 10:30-10:45** **TEA BREAK**
- 10:45-11:15** **Tae-Rin Lee, Ph. D.** (Advanced Institute of Convergence Technology, Seoul National University)  
**Predicting hemodynamics, angiogenesis and tumor growth at the microvascular network level**
- 11:15-11:45** **Jihoon Kweon, Ph. D.** (Biomedical Research Center, Asan Medical Center)  
**Mathematical modeling of cardiovascular systems for developing better diagnostic methods**
- 11:45-12:15** **Jae-Hun Jung, Ph. D.** (Data Science, Ajou University)  
**Topological data analysis of vascular flows with high order spectral approximations**
- 12:15-13:00** **LUNCH BREAK**
- 13:00-13:30** **Seonhee Lim, Ph. D.** (Dep. of Mathematics, Seoul National University)  
**Entropy and weights on nodes in brain networks**
- 13:30-14:00** **Jiyoung Kang, Ph. D.** (Nuclear Medicine, Yonsei University College of Medicine)  
**Energy landscape analysis of brain dynamics**
- 14:00-14:30** **Hae-Jong Park, Ph. D.** (Nuclear Medicine, Yonsei University College of Medicine)  
**Dynamic Brain Networks**
- 14:30-15:00** **Sehun Chun, Ph. D.** (Underwood International College, Yonsei University)  
**Computing Riemannian curvature in diffusion MRI for global tractography**
- 15:00-17:00** **FREE DISCUSSION**

FOR ATTENDANCE : <https://goo.gl/forms/ngvZdFEpl12VPXCp2>

COFFEE (TEA) / SNACKS / LUNCH BOXES ARE PROVIDED



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