

A significant portion of medical physics research is focused on the development of medical imaging methods and the optimization of the existing ones, primarily using physical concepts and paradigms. The stated goal of these efforts has been the improvement in the diagnosis of medical abnormalities or conditions. While these developments have led to notable improvements in medical diagnosis, the connection between the physical concepts and medical diagnosis has rarely been made at a scientific level. This symposium focuses on the clinical relevance and translational aspects of some of the basic physical concepts that are often utilized in medical physics research. The lectures aim to make a bridge between Physics and Medicine, directly addressing how physical concepts used in medical imaging relate to diagnostic quality.