S4-P.9 Features in Infrared Image Processing of Biotissue with Internal Heat Source

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On the base of the known solutions to the heat transfer equation for biotissue, the data of a thermal imager are related with thermophysical, optical and geometrical characteristics of the tissue as well as with power, depth, and temperature of an internal heat source. The main idea of the paper is to get insight into tissue depth by using observations of tissue surface. Observed quantities are discussed to provide a basis to include the features in infrared imaging into retrieval schemes for solving various inverse problems of biomedical optics.