1125-35-140 **Aviv Gibali*** (`avivg@braude.ac.il`), Department of Mathematics, ORT Braude College, P.O. Box 78, Karmiel 2161002, Israel, 2161002 Karmiel, Israel. *Gradient and Extragradient methods for the inverse problem of tumor identification.*

In this talk we consider an inverse problem of parameter identification in linear incompressible elasticity with an application to tumor identification within the interior of the human body. We present several gradient-based and extragradient methods for the solution of the elastography inverse problem arising in the identification of cancerous tumors. From a mathematical standpoint, this inverse problem requires the identification of a variable parameter in a system of incompressible elasticity. We use an equation error approach to formulate the inverse problem as a convex optimization problem.