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**Nhan Tam Quyen Tran\*** (tntquyen@gmail.com), School of Medicine, Davis Health, University of California at Davis, Sacramento, CA 95817. *Diffuse optical tomography with incomplete and noisy Cauchy data*. Preliminary report.

In this presentation we would like to present the problem of identifying the conductivity and/or the reaction coefficient in elliptic PDEs from several sets of Cauchy data on an accessible part of the boundary. The variational method of the finite element discretization combining with the regularization technique is applied to tackle the severely ill-posed identification problem. The stability of the proposed approach and the convergence of the finite element regularization approximations to the sought coefficients are discussed, which confirms that the coefficients distributed inside the physical domain can be reconstructed from a finite number of partial Cauchy data. (Received August 21, 2021)