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Linh Viet Nguyen* (languyen@uidaho.edu), 875 Perimeter Dr, Moscow, ID 83844, and **Duy Ngoc Nguyen** (nnduy@ptnk.edu.vn), Ho Chi Minh, Vietnam. *Mathematics of the Conical Radon Transform*.

Recently, the conical Radon transform has been intensively studied, thanks to its applications in Compton camera imaging and mathematical interest. In general, the conical Radon transform is over-determined. One can either restrict it into a lower dimensional manifold or take advantage of data redundancy. These options open up many interesting problems to study. In this talk we focus on two problems. The first one is the inversion of the conical Radon transform with vertices on a vertical line and horizontal symmetric axes. The second problem is sampling theory of V-line transform, which is the reduction of the conical Radon transform in the two dimensional space. (Received January 14, 2021)