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Deeply Virtual Compton Scattering off ^4He nucleus AHMED EL ALAOUI — The recently developed formalism of generalized parton distributions (GPDs) provides a theoretical tool to reveal the internal structure of the nucleon. These objects can be obtained via Deeply Virtual Compton Scattering (DVCS) processes. They contain informations on the transverse spatial position and the longitudinal momentum of quarks inside the nucleon and they also give access to the contribution of the quark orbital angular momentum to the nucleon. In contrast to many DVCS experiments using a proton target, only few experiments are devoted to study GPDs in a nuclear target which is important because it allows to address medium modification of bound nucleon GPDs compared to free nucleon GPDs. One of the goals of the new EG6 experiment at Thomas Jefferson Laboratory is to extract the real and imaginary parts of the ^4He Compton form factor ($\mathcal{H}_A(x_B,t)$) from measurement of beam spin asymmetries by scattering a polarized 6 GeV electron beam off a ^4He pressurized gaz target. Details on the experiment will be presented here.

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