1096-39-997 **Anton Dzhamay** (anton.dzhamay@unco.edu) and **Tomoyuki Takenawa*** (takenawa@kaiyodai.ac.jp). *Schlesinger transformation and discrete Painlevé equation of type* $A_1^{(1)*}$. Preliminary report.

Schlesinger transformations are algebraic transformations of a Fuchsian system that preserve its monodromy representation and act on the characteristic indices of the system by integral shifts. One of the important reasons to study such transformations is the relationship between Schlesinger transformations and discrete Painlevé equations. The Fuchsian systems were classified by Ohshima recently by their spectral types and transformations so called additions and middle convolutions. In the previous study, we showed how to write an elementary Schlesinger transformation as a discrete Hamiltonian system w.r.t. the standard symplectic structure on the space of Fuchsian systems. We then showed how Schlesinger transformations reduce to discrete Painlevé equations of type $D_4^{(1)}$ (or difference Painlevé V) and type $A_2^{(1)*}$. In this talk, we extend our previous results to discrete Painlevé equations of type $A_1^{(1)*}$ and explicitly show how to obtain the equations of this type as reductions of Schlesinger transformations. (Received September 12, 2013)