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Bingyuan Liu* (bingyuan@math.wustl.edu), Saint Louis, MO 63130. *Recent results on noncompact automorphism groups.*

Let \mathbb{C}^n be a bounded domain. It was a long time ago when mathematicians started to consider a group of automorphisms $\phi_j \in \text{Aut}(\Omega)$ which is not compact. Greene and Krantz gave a conjecture that the orbit accumulation point is finite type in the early 90s. We are going to review some relative results over the past 20 years and problems remaining to be solved. As the second part of this talk, we consider the property of noncompact automorphism groups from another aspect, namely, to check whether the domain is globally pseudoconvex. Some partial results have been studied in various papers under the hypothesis of local pseudoconvexity around orbit accumulation point. At the last, we introduce a brand new result in case of \mathbb{C}^2 . With an assumption in regularity of the boundary of the domain in \mathbb{C}^2 , if there is at least one hyperbolic orbit accumulation point p , the domain will be globally pseudoconvex. If there is time, more further results will also be introduced. (Received October 19, 2013)