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Monodromy of a holomorphic family of Riemann surfaces. (English) [Zbl 0963.30027](#)

Kajiwara, Joji (ed.) et al., Finite or infinite dimensional complex analysis. Proceedings of the seventh international colloquium, Fukuoka, Japan, 1999. New York, NY: Marcel Dekker. Lect. Notes Pure Appl. Math. 214, 169-177 (2000).

Authors' abstract: We consider holomorphic families of Riemann surfaces which are constructed from Kōdaira surfaces. Our chief interest is to classify elements of the monodromy group of such a holomorphic family of Riemann surfaces, i.e., surface automorphisms f_C on a fiber induced under the deformation of markings along closed curves C of the base surface. We will show that the Nielsen-Thurston-Bers type of f_C is described in terms of C . The problem considered, and the form of the solution are suggested by Kra's beautiful theorem on the classification of some self-maps of Riemann surfaces. In this note, we report results on the case of an example of a Kōdaira surface due to Riera. Proofs will appear elsewhere. For the entire collection see [\[Zbl 0943.00051\]](#).

Reviewer: [Steffen Timmann \(Hannover\)](#)

MSC:

[30F10](#) Compact Riemann surfaces and uniformization