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**Pierre Arnoux**, Institute de Mathematique de Luminy, 163 Avenue de Luminy, Case 907, 13288 Marseille, France, and **Thomas A. Schmidt\*** ([toms@math.orst.edu](mailto:toms@math.orst.edu)), Department of Mathematics, Kidder Hall, Oregon State University, Corvallis, OR 97331. *Veech surfaces and Rosen fractions.*

In 2000, Arnoux and Hubert defined continued fraction algorithms on real numbers related to directions of foliations on translation surfaces constructed by W. Veech from regular polygons. These algorithms give expansions in terms of certain Fuchsian groups, each of which is conjugate to an index two subgroup of some Hecke triangle group. Some 50 years ago, D. Rosen gave continued fraction algorithms in terms of these Hecke triangle groups. We compare these algorithms and draw some conclusions about translation surfaces. (Received March 05, 2006)