

1116-VU-1716 **Mehmet Emin Aktas*** (maktas@math.fsu.edu), 208 Love Building, 1017 Academic Way,
Tallahassee, FL 32306. *Classification of Dessins D'Enfants of the Completely Reducible Trigonal
Curves.*

In recent years, topology of singular plane algebraic curves has been an area of active research. Especially, there is a huge effort on the computation of the fundamental group of plane curve complements. However, there is a geometric approach, which is developed by A. Degtyarev, to the study of such plane curves with using the representation of curves via trigonal curves in Hirzebruch surfaces and Grothendieck's *dessins d'enfants*. Via dessin d'enfants, we can compute the braid monodromy of the complement of the trigonal curve C and the exceptional section E , *i.e.*, $\Sigma_1 \setminus (C \cup E)$. In this study, we work on the topology of the completely reducible trigonal curves *i.e.* the curves in the form $(y - p_1)(y - p_2)(y - p_3) = 0$ where $p_1, p_2, p_3 \in \mathbb{C}[x]$. We give the classification of Dessin d'enfants of these curves up to ambient isotopy for some certain degrees and work on the topology of each class. (Received September 21, 2015)