1154-11-763 **Borys Kadets*** (bkadets@mit.edu). *Sectional monodromy groups of projective curves.*

Fix a field K. Let $X \subset \mathbb{P}^n$ be a projective curve of degree d. Let $H \in (\mathbb{P}^n)^*_{K(t_1,\ldots,t_n)}$ denote the generic hyperplane, i.e. the hyperplane given by the equation $x_0 + t_1x_1 + \ldots + t_nx_n$ over the field $L = K(t_1, \ldots, t_n)$. A point of $H \bigcap X$ has residue field M/L of degree d. The Galois group G_X of the Galois closure of M/L is the *sectional monodromy group* of X, it is naturally a permutation group on d letters. Geometrically, G_X is the monodromy group of a hyperplane section $H \bigcap X$ as H varies. When K has characteristic 0, the sectional monodromy group is always the full symmetric group S_d; this fact is important in studying the degree-genus problem for projective curves. In characteristic p sectional monodromy groups can be much smaller than S_d. I will talk about a method for computing sectional monodromy groups. I will show two applications of the method: determining sectional monodromy groups of nonstrange curves in $\mathbb{P}^n, n \geqslant 3$ and determining sectional monodromy groups of the plane monomial curves $x^n = y^m$. The possibilities for the latter include Mathieu groups M_{11}, M_{23}, M_{24} and linear groups $\mathrm{AGL}_1(q), \mathrm{PGL}_d(q)$. (Received September 10, 2019)