

Meeting: 1006, Lubbock, Texas, SS 7A, Special Session on Topology of Dynamical Systems

1006-37-173 **Lex G. Oversteegen*** (overstee@math.uab.edu), UAB–Mathematics, Birmingham, AL 35294,
and **Alexander Blokh** (ablokh@math.uab.edu). *Wandering d -gons in laminations*. Preliminary
report.

W. P. Thurston introduced closed σ_d -invariant laminations (where $\sigma_d = z^d : S^1 \rightarrow S^1$, $d \geq 2$) as a tool in complex dynamics. He defined *wandering triangles* as triples $T \subset S^1$ such that $\sigma_d^n(T)$ consists of three distinct points for all $n \geq 0$ and the convex hulls of all the sets $\sigma_d^n(T)$ in the plane are pairwise disjoint, and proved that σ_2 admits no wandering triangles. Similar to that one can define a *wandering k -gon* (or *wandering gap*) and study if they exist for various types of laminations.

We show that for every $d \geq 3$ there exist uncountably many σ_d -invariant closed laminations with a wandering d -gon and pairwise non-conjugate induced maps on the corresponding quotient spaces J . Moreover all these dynamical systems are realizable as polynomials of degree d on their locally connected Julia sets. (Received February 14, 2005)