

Meeting: 1006, Lubbock, Texas, SS 1A, Special Session on Topology of Continua

1006-37-137 **Henk Bruin*** (H.Bruin@surrey.ac.uk), Department of Mathematics, University of Surrey, GU2 7XH England. *Asymptotic arc-composants in unimodal inverse limit spaces.*

Barge & Diamond, using substitution shifts, discovered that every inverse limit space whose single bonding map is a unimodal map with a periodic turning point has asymptotic arc-composants. This means that some arc-composants A and A' can be parametrized by $\phi : R \rightarrow A$ and $\phi' : R \rightarrow A'$ such that $d(\phi(t), \phi'(t)) \rightarrow 0$ as $t \rightarrow \infty$. In this talk I want to present a different method of finding asymptotic arc-composants and the fans and cycles they are arranged in. In one instance, there is a single arc-composant that is bi-asymptotic; there is a parametrization $\phi : R \rightarrow A$ such that $d(\phi(t), \phi(-t)) \rightarrow 0$ as $t \rightarrow \infty$. Asymptotic arc-composants may be used to distinguish between inverse limit spaces, but they don't seem to give a complete classification. (Received February 11, 2005)