

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

1006-54-247 **David J Ryden***, Department of Mathematics, Baylor University, One Bear Place #97328, Waco, TX 76712-7328. *Representation of the Composant Equivalence Relation for Indecomposable Continua*. Preliminary report.

There are basically two forms of complexity for the composants equivalence relation of an indecomposable continuum. A continuum M of the simpler type admits a Borel function f of M into the space $\{0, 1\}^{\mathbb{N}}$ such that two points x and y belong to the same component of M if and only if $f(x)$ and $f(y)$ agree in all but finitely many coordinates. Such continua are called \mathbb{E}_0 continua. Among the continua included in this class are Knaster continua and, more generally, continua which arise as inverse limits of Markov interval maps. The pseudo-arc, for example, belongs to the more complicated class \mathbb{E}_1 .

The function f need not map M onto $\{0, 1\}^{\mathbb{N}}$; furthermore there may be another Borel function g that has a different image in the space $\{0, 1\}^{\mathbb{N}}$. Thus f and g may give rise to different representations of the composants equivalence relation of M . This suggests the following question. Under what circumstances do two subspaces of $\{0, 1\}^{\mathbb{N}}$ both represent the composants equivalence relation of the same continuum? In this talk, we will probe this question. (Received February 15, 2005)