Meeting: 1006, Lubbock, Texas, OH, Invited Address

1006-57-150 **Nikolai V. Ivanov*** (ivanov@math.msu.edu), Michigan State University, Department of Mathematics, Wells Hall D-220, East Lansing, MI 48824. *Mapping class groups of surfaces and complexes of curves.*

Mapping class groups of surfaces are the higher genus analogues of $SL(2, \mathbf{Z})$ and can be thought as an alternative to the arithmetic groups. From this point of view, the complexes of curves (introduced by W. Harvey in the late 70-is, but foreshadowed in the work of M. Dehn forty years earlier) are the analogues of the Tits buildings. They turned out to be a crucial tool in understanding both the algebraic structure of mapping class groups and the geometric structure of the Teichmüller spaces.

The talk will be devoted to an overview of this line of research, discussing both its classical roots and the recent surge of activity. (Received February 13, 2005)