Fall 2001 and Spring 2002 UF Graduate Student TOPOLOGY SEMINAR

Fall Semester: Tuesdays 8th Period (3:00-3:50 PM) Spring Semester: Wednesday 9-10th Period (4:05-6:00 PM)

305 Little Hall

Schedule of Talks for Fall Semester

August 28

Sergey Melikhov, On isotopy realization of mappings I

September 4

Sergey Melikhov, On isotopy realization of mappings II

September 11

Seminar cancelled

September 18

Gregory Bell, On asymptotic dimension of groups acting on trees

Abstract. We will prove **Theorem.** Let π be the fundamental group of a graph of groups with finitely generated vertex groups G_v having $\Lambda G_v \le G_v$ for all vertices V. Then $\Lambda G_v \le G_v$

This gives the best estimate for the asymptotic dimension of an HNN extension and the amalgamted product.

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September 25
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Gregory Bell, On asymptotic dimension of groups acting on trees (continued)

October 2

Sergey Melikhov, *Discrete & isotopic realization of maps of S*ⁿ to Sⁿ in R²ⁿ (continued)

October 9

Sergey Melikhov, *Discrete & isotopic realization of maps of S*ⁿ to Sⁿ in R²ⁿ (continued)

October 16

Rustam Sadukov, *Singularities of smooth mappings* (continued)

October 23

Rustam Sadukov, Singularities of smooth mappings (continued)

October 16

Rustam Sadukov, Singularities of smooth mappings (continued)

October 23

Rustam Sadukov, Singularities of smooth mappings (continued)

October 30

Rustam Sadukov, Singularities of smooth mappings (continued)

November 6

Rustam Sadukov, Singularities of smooth mappings (continued)

November 13

Rustam Sadukov, On the Atiyah-Singer index theorem

November 20

Sergey Melikhov, On a Whitehead conjecture and Eilenberg-Ganea problem

November 27

Sergey Melikhov, *On a Whitehead conjecture and Eilenberg-Ganea problem* (continued)

December 4

Sergey Melikhov, *On a Whitehead conjecture and Eilenberg-Ganea problem* (continued)

Schedule of Talks for Fall Semester

January 16

Yuli Rudyak, An introduction to Thom spaces

January 23

Sergey Melikhov, \$\gamma_omega\$ and links

January 30

Sergey Melikhov, \$\gamma_omega\$ and links (continued)

February 6

Greg Bell, On property A

February 13

Seminar cancelled due to colloquium by Halberstam

February 20

Rustam Sadykov, On Seiberg-Witten invariant

February 27

Rustam Sadykov, Differential structures on 4-manifolds (continued)

March 20

Greg Bell, Complexes of groups

March 27

Seminar Cancelled

April 3

Rustam Sadykov, Differential structures on 4-dimensional manifolds

April 10

Sergey Melikhov, On the theorem of Bestvina-Brady

April 17

Sergey Melikhov, Sunny collapsing and s-cobordisms

Abstract. Some speculations will be presented on finding a purely geometric proof of the s-cobordism theorem and applications to dim 4. As a basis for this research program, the idea of a (relatively) new proof of Zeeman's unknotting theorem will be outlined, which proves also some related results from 60s. Relations with higher algebraic K-theory and with the concept of k-quasi-isotopy will also be discussed.