

Fifth NRW Topology Meeting – Bielefeld (Germany)

Friday, April 28, 2006

14.30 – 15.15, Hörsaal 11

Rainer Vogt (Osnabrück): **”Homotopy limits and colimits in classical homotopy theory”**

Homotopy limits and colimits of coherently homotopy commutative diagrams were introduced more than 30 years ago, but most applications of homotopy limits and colimits have been restricted to strictly commuting diagrams. The talk advertises the more general set-up which allows to replace an object in a diagram by a homotopy equivalent one and a morphism by any other in the same homotopy class. Using this additional flexibility, we give short proofs of a number of classical results indicating that classical homotopy theory is essentially the theory of homotopy limits and colimits.