- **Steimle, Wolfgang: Secondary kappa-classes and exotic fiber bundles (SR1 c)**
  Kappa-classes, or generalized Morita-Miller-Mumford classes, are prominent characteristic classes of smooth fiber bundles. We introduce a notion of secondary kappa-class which we use to show the existence of certain exotic fiber bundles -- that is, smooth fiber bundles which are non-trivial but trivial when considered as topological fiber bundles. This builds on works of M. Weiss on rational Pontryagin classes and of Hebestreit-Land-Lück-Randal-Williams on vanishing of (primary) kappa-classes for many smooth bundles with aspherical fibers. (Joint work with D. Crowley and Th. Schick.)