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**C. Joanna Su\*** ([jsu@providence.edu](mailto:jsu@providence.edu)), 549 River Avenue, Dept. of Mathematics and Computer Science, Providence College, Providence, RI 02918. *Relative Homotopy Groups of Modules - from a Different Viewpoint.*

During the search for the analogy between the relative homotopy groups in module theory and those in topology, we realise that the (injective) relative homotopy group, of modules, for a map has a structure which is fairly similar to an (injective) homotopy group of a cokernel. We then analyze the phenomena related the two; as expected, they are not always isomorphic. Nonetheless, the fact that all relative homotopy groups are isomorphic to certain "strong (absolute) homotopy groups" gives rise to the possibility of developing parallel concepts of fibration and cofibration in projective and injective homotopy theories, respectively, in module theory, corresponding to the existing fibration/cofibration relation in algebraic topology. (Received September 26, 2006)