1050-52-86   **Gordon Iam Williams*** (`gordonianwilliams@mac.com`), 87 Liberty Alley, Rahns, PA
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In recent years a variety of efforts have been undertaken to better understand the structure of abstract polytopes as quotients of regular abstract polytopes. A result of particular importance in the development of this theory was obtained by M.I. Hartley in his dissertation which observes that all abstract polytopes may be represented as quotients of regular abstract polytopes. In this talk we will explore some of the special problems and surprising insights that may be obtained about the structure of such quotients by considering the special case of the uniform tilings of the plane (those tilings whose faces are regular convex polygons and whose symmetry group acts transitively on the vertices). This talk will include a discussion of the minimal presentations for the quotients as well as some of the broader implications to the theory of quotients of polytopes that resulted from this investigation. (Received February 26, 2009)

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