Abstract: Many applications require large m*n matrices. The necessity to store these matrices and to perform operations, like matrix-vector multiplications, with these matrices restricts the size of problems which can be solved with mathematical methods. Dr. Eugene Tyrtyshnikov, in his article Mosaic Rank and Skeletons, showed that approximations to these matrices can be stored in less than m*n memory units. Tyrtyshnikov's approach uses the fact that some full rank matrices can be partitioned into sub-matrices and these sub-matrices can be approximated by dyadic products. By using these dyadic products the storage requirement for the sub-matrices can be reduced. Tyrtyshnikov defines the mosaic rank as a measure for a matrix that describes the necessary memory to store a matrix. In my talk, I will present the necessary terminology to understand Tyrtyshnikov's results and I will present the outline of my thesis.