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Strassen's Matrix Multiplication is a divide and conquer approach that reduces the time complexity of matrix multiplication from O(n^3) to O(n^log7). However, it is not usually preferred for practical applications due to high constants, better methods for sparse matrices, extra space required for submatrices, and larger errors due to limited precision of computer arithmetic on noninteger values. The time complexity of Strassen's Method is O(N^2.8074).

The matrix chain multiplication algorithm is commonly used to find the minimum cost of multiplying a sequence of matrices. However, it has a time complexity of O(n^3) and requires significant space. An improved algorithm is presented that reduces time complexity to O(n^2) in the best and average cases, and space requirement to O(n^2). The proposed algorithm still has a worst-case time complexity of O(n^3) when two specific values are the same. The algorithm's viability is demonstrated with examples and computationally verified.