

# Convex Hull

Beyond 3 Dimension

- 3D

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## $O(n \log n)$ : Upper Bound For 3D

- ❖ The convex hull of  $n$  points in space can be computed in  $O(n \log n)$  time
- ❖ Implementation using divide-and-conquer strategy

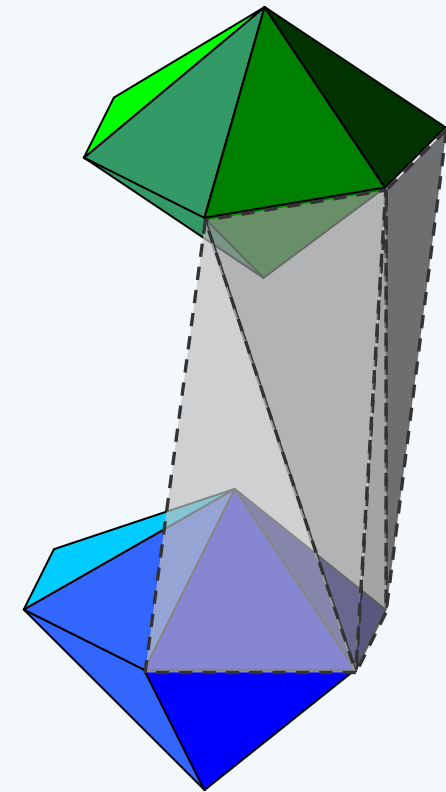
A. M. Day

*The Implementation of an Algorithm to*

*Find the Convex Hull of*

*a Set of Three-Dimensional Points*

ACM Trans. Graphics, 9(1):105-132 (1990)



- ❖ This is an optimal algorithm for 3D CH //why?