

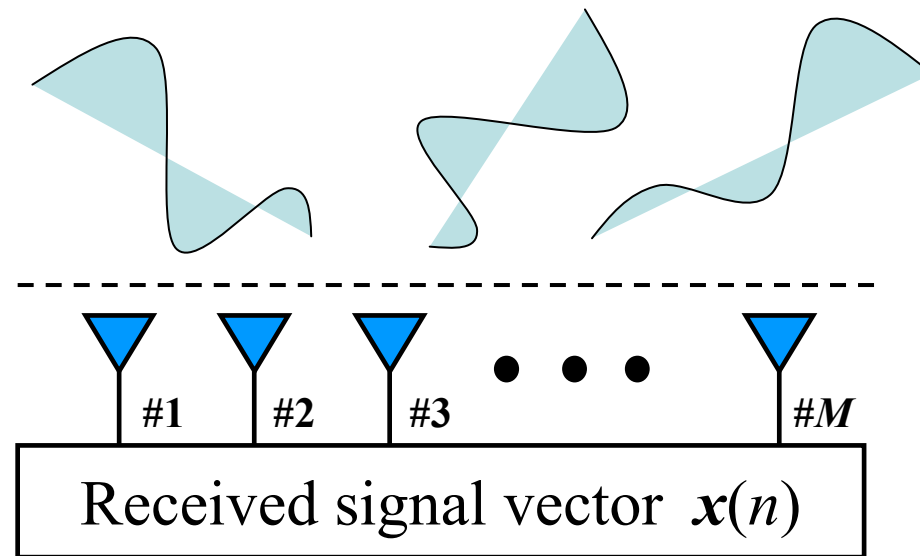


# What is Array Signal Processing?



# Array Signal Processing

- The signal processing using two or more antennas
- Field used : Detection of signal, Seismology, Astronomy[1]
- Advantage : The array antenna can receive more signals compared to the single antenna case.



[1] S. U. Pillai, "Array Signal Processing," New York: Springer-Verlag, 1989.



# Direction-of-Arrival Estimation

- Direction-of-Arrival Estimation of electric wave by array signal processing
  - Application  $\Rightarrow$  radar, sonar etc.
- Example : Estimating the direction of arrival of airplane from the received signal vector  $\mathbf{x}(n)$

