



The diagram illustrates the expansion of the transmission coefficient  $T_{11}$  into a series of terms. It is structured as follows:

- Left Side (Input Terms):** A vertical list of terms separated by plus signs:
  - $S_{11}$
  - $+ S_{1d} S_{dd} S_{d1}$
  - $+ S_{1d} S_{dd} S_{dd}^2 S_{d1}$
  - $+ S_{1d} S_{dd} S_{dd}^4 S_{d1}$
  - $+ \dots$
- Right Side (Output Terms):** A vertical list of terms separated by plus signs:
  - $S_{1d} S_{d1}$
  - $+ S_{1d} S_{dd}^2 S_{d1}$
  - $+ S_{1d} S_{dd}^4 S_{d1}$
  - $+ \dots$
- Diagrammatic Representation:**
  - Horizontal arrows represent wave propagation. A long arrow at the top points right, representing the incident wave.
  - Below it, a series of arrows represent reflections and transmissions at interfaces. For each term in the series, there is a pair of arrows (one pointing left, one pointing right) representing a reflection or transmission event.
  - The diagram shows how the total transmission  $T_{11}$  is the sum of multiple paths, each involving a different number of reflections at the interface between the two media.