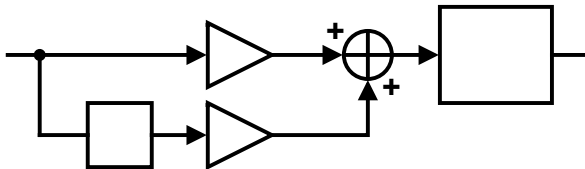


Continuous time filter

The diagram illustrates a continuous-time feedback filter. An input signal splits into two paths. The top path passes through a triangular block (representing a differentiator or integrator). The bottom path passes through a square block (representing a delay or integrator) and then a triangular block. The outputs of these two triangular blocks are summed at a circular node with a cross, indicated by plus signs. The output of the summing node passes through a square block (representing a delay or integrator) to produce the final output signal.



Discrete time filter (Direct type I)

The diagram illustrates a Discrete time filter (Direct type I). It features an input signal that splits into two main paths. The top path consists of a delay block (square) followed by a gain block (triangle), which is then added to the input at a summing junction (circle with a cross). The bottom path consists of a delay block (square) followed by a gain block (triangle), which is added to the output of the first summing junction at a second summing junction. The output of the second summing junction is the filter's output, which is also fed back through a delay block (square) and a gain block (triangle) to be added to the input at the first summing junction.

