Advantages

- Less area requirement
- Less power and energy consumption
- Higher speed

KEEPING THE SAME PRECISION, IT SIMPLIFIES HARDWARE

SLIGHT MODIFICATIONS AT LOGIC LEVEL

- Previous designs are very easily adapted to HUB
- Valid for any technology (ASIC or FPGA)

Applications

Digital systems based on real numbers
Industrial control
Physical simulations
Neural networks
Communications

Optimization examples

32-bit Floating-Point Adder (ASIC)

Power (mW)

Frequency (MHz)

Add-HUB
Add-STD
Ratio (%)

HUB/conv(%)

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Floating-Point on FPGA

Floating-Point on ASIC

More Information
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