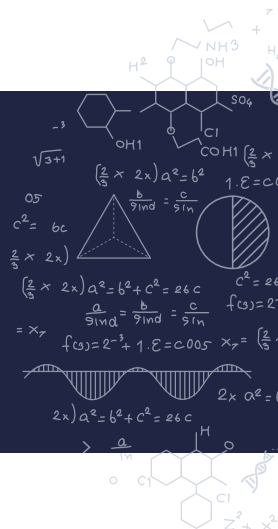


# LICENSING OPPORTUNITY: SUPERCONDUCTING OPTO-ELECTRONIC TRANSMITTER CIRCUIT



## DESCRIPTION

### Problem

Previous inventions allowing superconducting circuits to drive light sources can only operate in a very narrow range of LED device impedances before latching of the circuit becomes a problem.

### Invention

This invention describes a family of circuits that receive an input current or voltage pulse when a superconducting element has been driven above threshold, producing an amplified current or voltage pulse to drive a light source, and reset to the resting state after light has been generated.

## BENEFITS

### Commercial Application

- All hardware
- The circuits can be used for highly spatially multiplexed communication

## Competitive Advantage

Complementary metal-oxide-semiconductor (CMOS) technology has a major advantage in this area, as accurate models and modeling techniques are readily available.

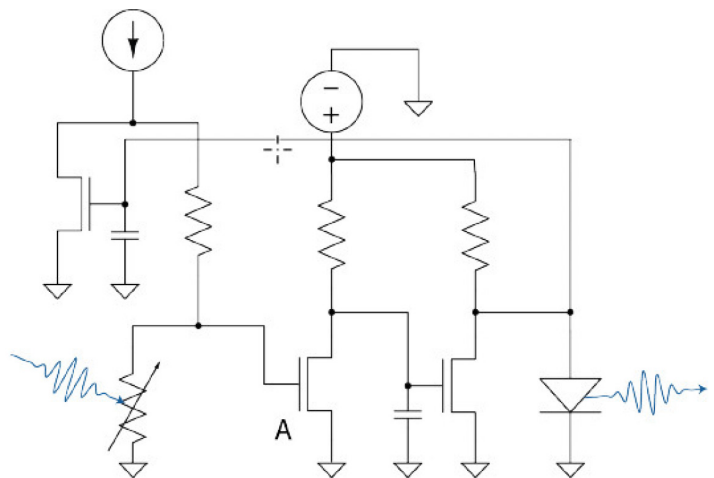


Diagram showing the circuit for resetting the Spectral Power Distribution (SPD) after the Light Emitting Diode (LED) has emitted a photonic pulse.

