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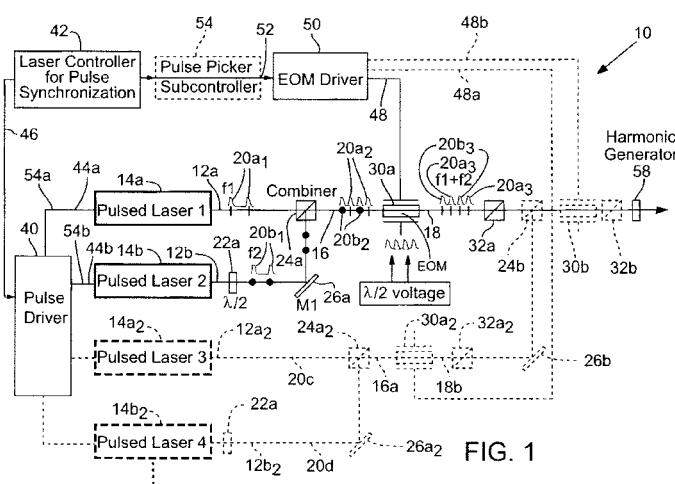


FIG. 1

(57) Abstract: Two pulsed lasers (14) or sets of lasers propagate beams of pulses (20) having orthogonally related polarization states. A beam combiner (24) combines the orthogonal beams to form a combined beam propagating along a common beam path (16) to intersect an optical modulator (30) that selectively changes the polarization state of selected pulses of either beam to provide a composite beam (18) including similarly polarized pulses from the orthogonal beams. The composite polarized beam has a composite average power and a composite repetition rate that are greater than those provided by either laser. The optical modulator can also selectively control the polarization states of pulses from either laser to pass through or be blocked by a downstream polarizer (32). Additional modulators may facilitate pulse shaping of the pulses. The system is scalable by addition of sets of single lasers or pairs of lasers with beam combiners and modulators.