



DEPARTMENT OF DEFENSE

Department of the Air Force

[Docket No. AFIT JOA 2025-02]

Notice of Intent to Grant a Joint Ownership Agreement with an Exclusive Patent License

AGENCY: Department of The Air Force, Department of Defense.

ACTION: Notice of Intent.

SUMMARY: Pursuant to the Bayh-Dole Act and implementing regulations, the Department of the Air Force hereby gives notice of its intent to grant a joint ownership agreement with an Exclusive Patent License to the Regents of the University of Michigan, a State Controlled Institution of Higher Learning having a place of business at 1600 Huron Pkwy, 2nd Floor, Ann Arbor, MI 48109-2590.

DATES: Written objections must be filed no later than fifteen (15) calendar days after the date of publication of this Notice.

ADDRESSES: Submit written objections to Karleine M. Justice, AFIT Office of Research and Technology Applications (ORTA), 2950 Hobson Way, Bldg 641, Rm 101C, Wright-Patterson AFB, OH 45433-7765; Phone: (937) 656-0754; or E-mail: karleine.justice.1@us.af.mil. Include Docket No. AFIT JOA 2025-02 in the subject line of the message.

FOR FURTHER INFORMATION CONTACT: Karleine M. Justice, AFIT Office of Research and Technology Applications (ORTA), 2950 Hobson Way, Bldg 641, Rm 101C, Wright-Patterson AFB, OH 45433-7765; Phone: (937) 656-0754; or E-mail: karleine.justice.1@us.af.mil.

Abstract of patent application(s):

A multi-pass cavity-based optical pulse contrast enhancement device is disclosed which selectively attenuates prepulses and other undesired low-power pulse features. The device may include two or more optical mirrors, an intracavity nonlinear medium, and a spatial filtration

arrangement that may be inside or outside of the cavity. The nonlinear medium enables a cavity configuration where low-power pulse features may be cavity-unstable and/or mode-mismatched whereas the high-power region may be cavity-stable and/or mode-matched. Propagation through the cavity distinguishes the low-power and high-power pulse regions in their spatial beam characteristics, enabling low-power suppression via diffraction losses, beam distortion, or spatial filtration. This improves upon prior solutions in that it improves pulse contrast by several orders of magnitude at high main pulse transmission efficiency, preserves near-diffraction limited beam quality, is compatible with high laser average powers and pulse repetition rates, and is configurable to accommodate high, e.g., multi-Joule pulse energies.

Intellectual property:

Patent Cooperation Treaty Application Serial No. PCT/US2025/038649, filed on July 22, 2025, and entitled “Nonlinear Multi-Pass Cavity Based Devices for Enhancing Optical Pulse Contrast”.

The Department of the Air Force may grant the prospective license unless a timely objection is received that sufficiently shows the grant of the license would be inconsistent with the Bayh-Dole Act or implementing regulations. A competing application for a patent license agreement, completed in compliance with 37 CFR 404.8 and received by the Air Force within the period for timely objections, will be treated as an objection and may be considered as an alternative to the proposed license.

Authority: 35 U.S.C. 209; 37 C.F.R. 404.

Crystle C. Poge,

Air Force Federal Register Liaison Officer

[FR Doc. 2026-00145 Filed: 1/7/2026 8:45 am; Publication Date: 1/8/2026]