# Akira Suda

List of Publications by Year
in descending order



| 129 | 2,594 | 201575 27 | 214721 47 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 133 | 133 | 133 | 1835 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Generation of sub-10-fs, 5-mJ-optical pulses using a hollow fiber with a pressure gradient. Applied Physics Letters, 2005, 86, 111116. | 1.5 | 173 |
| 2 | Generation of 50 fs, 50 mJ pulses at 1â€‰kHz using hollow-fiber pulse compression. Optics Letters, 2010, 35, 1887. | 1.7 | 146 |
| 3 | Generation of extreme ultraviolet continuum radiation driven by a sub-10-fs two-color field. Optics Express, 2006, 14, 7230. | 1.7 | 121 |
| 4 | Self-Compression of High-Intensity Femtosecond Optical Pulses and Spatiotemporal Soliton Generation. Physical Review Letters, 2000, 84, 3847-3850. | 2.9 | 114 |
| 5 | Petahertz optical drive with wide-bandgap semiconductor. Nature Physics, 2016, 12, 741-745. | 6.5 | 110 |
| 6 | Generation and characterization of ultrafast white-light continuum in condensed media. Applied Optics, 2002, 41, 3735. | 2.1 | 107 |
| 7 | Focusing coherent soft-x-ray radiation to a micrometer spot size with an intensity of 10^14 W/cm^2. Optics Letters, 2004, 29, 1927. | 1.7 | 102 |
| 8 | Theoretical simulation of electron-beam-excited xenon-chloride (XeCl) lasers. IEEE Journal of Quantum Electronics, 1983, 19, 1587-1600. | 1.0 | 81 |
| 9 | Generation of Strong Optical Field in Soft X-Ray Region by Using High-Order Harmonics. IEEE Journal of Selected Topics in Quantum Electronics, 2004, 10, 1315-1328. | 1.9 | 77 |
| 10 | XUV multiphoton processes with intense high-order harmonics. Progress in Quantum Electronics, 2008, 32, 43-88. | 3.5 | 67 |
| 11 | Propagation dynamics of femtosecond laser pulses in a hollow fiber filled with argon: constant gas pressure versus differential gas pressure. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 2002. | 0.9 | 60 |
| 12 | Attenuation of photobleaching in two-photon excitation fluorescence from green fluorescent protein with shaped excitation pulses. Biochemical and Biophysical Research Communications, 2003, 311, 592-596. | 1.0 | 55 |
| 13 | Generation of 5 fs, 0.5 TW pulses focusable to relativistic intensities at 1 kHz. Optics Express, 2008, 16, 10684. | 1.7 | 49 |
| 14 | Background-free deep imaging by spatial overlap modulation nonlinear optical microscopy. Biomedical Optics Express, 2012, 3, 1594. | 1.5 | 47 |
| 15 | High efficiency ultrafast water-window harmonic generation for single-shot soft X-ray spectroscopy. Communications Physics, 2020, 3, . | 2.0 | 47 |
| 16 | Enhancement of lateral resolution and optical sectioning capability of two-photon fluorescence microscopy by combining temporal-focusing with structured illumination. Biomedical Optics Express, 2013, 4, 2396. | 1.5 | 46 |
| 17 | All-reflective interferometric autocorrelator for the measurement of ultra-short optical pulses. Applied Physics B: Lasers and Optics, 2003, 76, 525-530. | 1.1 | 42 |
| 18 | Generalization of the Kerr effect for high intensity, ultrashort laser pulses. New Journal of Physics, 2008, 10, 053006. | 1.2 | 42 |

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|---|---|---|---|
| 19 | Single-pulse coherent anti-Stokes Raman scattering microscopy employing an octave spanning pulse. Optics Express, 2009, 17, 11259. | 1.7 | 42 |
| 20 | Propagation dynamics of femtosecond laser pulses in argon. Physical Review A, 2002, 66, . | 1.0 | 41 |
| 21 | Pointing stabilization of a high-repetition-rate high-power femtosecond laser for intense few-cycle pulse generation. Applied Physics Letters, 2008, 92, . | 1.5 | 38 |
| 22 | Multifarious control of two-photon excitation of multiple fluorophores achieved by phase modulation of ultra-broadband laser pulses. Optics Express, 2009, 17, 13737. | 1.7 | 37 |
| 23 | Fully stabilized multi-TW optical waveform synthesizer: Toward gigawatt isolated attosecond pulses. Science Advances, 2020, 6, eaay2802. | 4.7 | 36 |
| 24 | Measurements of gain, saturation, and line competition in an electron beam pumped highâ€pressure Ar/Xe laser. Applied Physics Letters, 1989, 54, 1305-1307. | 1.5 | 35 |
| 25 | Attosecond pulse generation using high harmonics in the multicycle regime of the driver pulse. Physical Review A, 1998, 58, 3311-3319. | 1.0 | 31 |
| 26 | High-order harmonic and attosecond pulse generations:â€ƒBulk media versus hollow waveguides. Physical Review A, 2001, 63, . | 1.0 | 28 |
| 27 | Theoretical evaluation of electronâ€beamâ€excited KrF lasers using argonâ€free mixtures of one atmosphere. Applied Physics Letters, 1984, 45, 305-307. | 1.5 | 27 |
| 28 | Characteristics of the high-pressure Ar-Xe laser pumped by an electron beam and an electron-beam sustained discharge. IEEE Journal of Quantum Electronics, 1990, 26, 911-921. | 1.0 | 26 |
| 29 | Sub-10 fs, multimillijoule laser system. Review of Scientific Instruments, 2005, 76, 093114. | 0.6 | 26 |
| 30 | Measurement of two-photon excitation spectra of fluorescent proteins with nonlinear Fourier-transform spectroscopy. Applied Optics, 2010, 49, 3323. | 2.1 | 26 |
| 31 | Characteristics of an electron beam pumped KrF laser amplifier with an atmosphericâ€pressure Krâ€rich mixture in a strongly saturated region. Applied Physics Letters, 1987, 51, 218-220. | 1.5 | 25 |
| 32 | Compression of intense ultrashort laser pulses in a gas-filled planar waveguide. Optics Letters, 2008, 33, 2992. | 1.7 | 24 |
| 33 | Atmospheric pressure operation of an electron beam excited KrF laser using Kr/F2mixtures. Applied Physics Letters, 1984, 45, 1165-1167. | 1.5 | 23 |
| 34 | Generation and propagation of high-order harmonics in high-pressure gases. Physical Review A, 2000, 62, . | 1.0 | 23 |
| 35 | Polarization properties of ultrafast white-light continuum generated in condensed media. Applied Physics Letters, 2002, 80, 923-925. | 1.5 | 23 |
| 36 | Characterizing inner-shell with spectral phase interferometry for direct electric-field reconstruction. Nature Communications, 2014, 5, 5599. | 5.8 | 23 |

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| 37 | Focusing multiple high-order harmonics in the extreme-ultraviolet and soft-x-ray regions by a platinum-coated ellipsoidal mirror. Applied Optics, 2006, 45, 573. | 2.1 | 22 |
| 38 | Experimental observation of unstable resonator mode evolution in a highâ€power KrF laser. Journal of Applied Physics, 1985, 58, 3987-3990. | 1.1 | 21 |
| 39 | A spatial light modulator based on fused-silica plates for adaptive feedback control of intense femtosecond laser pulses. Optics Express, 2001, 9, 2. | 1.7 | 21 |
| 40 | Fourier-transform spectroscopy combined with a 5-fs broadband pulse for multispectral nonlinear microscopy. Physical Review A, 2008, 77, . | 1.0 | 20 |
| 41 | Theoretical analysis of electron-beam-excited KrF laser performance: New F<inf>2</inf>concentration optimization. IEEE Journal of Quantum Electronics, 1983, 19, 232-242. | 1.0 | 19 |
| 42 | Ionization-induced high-order nonlinear susceptibility. Physical Review A, 2002, 66, . | 1.0 | 19 |
| 43 | Adaptively controlled supercontinuum pulse from a microstructure fiber for two-photon excited fluorescence microscopy. Applied Optics, 2007, 46, 3023. | 2.1 | 19 |
| 44 | Generation and propagation of attosecond pulses in He gas with sub-10-fs driver pulses. Physical Review A, 1999, 60, 2587-2590. | 1.0 | 18 |
| 45 | Absorption and oscillation characteristics of a pulsed Cr/sup 4+/:YAG laser investigated by a double-pulse pumping technique. IEEE Journal of Quantum Electronics, 1999, 35, 1548-1553. | 1.0 | 18 |
| 46 | Effects of Nonlinear Chirp on the Self-Phase Modulation of Ultrashort Optical Pulses. Applied Sciences (Switzerland), 2012, 2, 549-557. | 1.3 | 18 |
| 47 | High-energy conversion efficiency of transient stimulated Raman scattering in methane pumped by the fundamental of a femtosecond Ti:sapphire laser. Optics Letters, 1999, 24, 1308. | 1.7 | 15 |
| 48 | Optical Pulse Compression of Ultrashort Laser Pulses in an Argon-Filled Planar Waveguide. Physical Review Letters, 2006, 97, 153902. | 2.9 | 15 |
| 49 | Optimization of hollow fiber pulse compression using pressure gradients. Applied Physics B: Lasers and Optics, 2007, 89, 209-215. | 1.1 | 15 |
| 50 | Nonlinear Optical Microscopy and Spectroscopy Employing Octave Spanning Pulses. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 767-780. | 1.9 | 15 |
| 51 | Performance characteristics of the ArF excimer laser using a lowâ€pressure argonâ€rich mixture. Journal of Applied Physics, 1986, 60, 3791-3793. | 1.1 | 13 |
| 52 | Measurement of two-photon excitation spectrum used to photoconvert a fluorescent protein (Kaede) by nonlinear Fourier-transform spectroscopy. Biomedical Optics Express, 2010, 1, 687. | 1.5 | 12 |
| 53 | Spatiotemporal dynamics of high-intensity femtosecond laser pulses propagating in argon. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 603. | 0.9 | 11 |
| 54 | SATURATION OF NONLINEAR SUSCEPTIBILITY. Journal of Nonlinear Optical Physics and Materials, 2004, 13, 301-313. | 1.1 | 11 |

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|---|---|---|---|
| 55 | Control of self-phase modulation and plasma-induced blueshifting of high-energy, ultrashort laser pulses in an argon-filled hollow fiber using conjugate pressure-gradient method. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1757. | 0.9 | 11 |
| 56 | High-resolution fluorescence microscopy based on a cyclic sequential multiphoton process. Biomedical Optics Express, 2010, 1, 791. | 1.5 | 11 |
| 57 | Temporal control of local plasmon distribution on Au nanocrosses by ultra-broadband femtosecond laser pulses and its application for selective two-photon excitation of multiple fluorophores. Optics Express, 2011, 19, 13618. | 1.7 | 11 |
| 58 | Atmospheric Pressure Operation of a KrF Laser Oscillator and Amplifier with a Krypton-Rich Mixture and a Kr/F<sub>2</sub> Mixture. Fusion Science and Technology, 1987, 11, 548-559. | 0.6 | 10 |
| 59 | Kinetic Studies of the Electron-Beam-Pumped ArF Laser Using an Ne/Ar/F2Mixture. Japanese Journal of Applied Physics, 1985, 24, 1183-1188. | 0.8 | 9 |
| 60 | Properties of a KrF laser with atmosphericâ€pressure Krâ€rich mixture pumped by an electron beam. Journal of Applied Physics, 1985, 58, 1129-1134. | 1.1 | 9 |
| 61 | Effects of helium addition to Ar-Xe mixtures in high-pressure atomic-transition xenon lasers. IEEE Journal of Quantum Electronics, 1990, 26, 1304-1308. | 1.0 | 9 |
| 62 | Cross section of supercooled238UF6 in multiphoton absorption induced by 16 micrometer Raman-laser radiation. Applied Physics B: Lasers and Optics, 1994, 59, 475-477. | 1.1 | 9 |
| 63 | Interference between stimulated Raman scattering and self-phase modulation in pressurized methane in highly transient femtosecond pump regime. Optics Communications, 2000, 174, 299-304. | 1.0 | 9 |
| 64 | Second-order autocorrelation functions for all-reflective interferometric autocorrelator. Applied Physics B: Lasers and Optics, 2007, 87, 221-226. | 1.1 | 9 |
| 65 | Line-by-line control of 10-THz-frequency-spacing Raman sidebands. Optics Express, 2010, 18, 732. | 1.7 | 9 |
| 66 | Apparatus for generation of nanojoule-class water-window high-order harmonics. Review of Scientific Instruments, 2021, 92, 063001. | 0.6 | 9 |
| 67 | Intracavity active frequency shift: a novel method of shifting the frequency of pulsed lasers. Optics Letters, 1993, 18, 1982. | 1.7 | 8 |
| 68 | A Single-Shot Transient-Grating Autocorrelator for the Measurement of Femtosecond Laser Pulses in the Ultraviolet. Japanese Journal of Applied Physics, 2004, 43, 993-996. | 0.8 | 8 |
| 69 | High-Transmittance Free-Standing Aluminum Extreme Ultraviolet Filter. Japanese Journal of Applied Physics, 2009, 48, 122202. | 0.8 | 8 |
| 70 | Simultaneous imaging of two-photon absorption and stimulated Raman scattering by spatial overlap modulation nonlinear optical microscopy. Biomedical Optics Express, 2013, 4, 1548. | 1.5 | 8 |
| 71 | Highâ€efficiency multikilojoule deuterium fluoride (DF) chemical lasers initiated by intense electron beams. Journal of Applied Physics, 1986, 59, 324-326. | 1.1 | 7 |
| 72 | Vibrational predissociation of UF6 clusters in supersonic Laval nozzle flow. Applied Physics B: Lasers and Optics, 1996, 63, 57-61. | 1.1 | 7 |

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| 73 | Control of spectral distribution of Raman sidebands in impulsively stimulated rotational Raman scattering. Applied Physics Letters, 2002, 80, 894-896. | 1.5 | 7 |
| 74 | Intense femtosecond pulse shaping using a fused-silica spatial light modulator. Optics Communications, 2007, 270, 305-309. | 1.0 | 7 |
| 75 | Gas degradation and O2production in a high repetition rate, transversely excited atmospheric CO2laser. Journal of Applied Physics, 1992, 71, 2025-2027. | 1.1 | 6 |
| 76 | Enhanced Raman conversion by a twoâ€longitudinalâ€mode beam in the paraâ€hydrogen Raman laser. Journal of Applied Physics, 1996, 79, 45-48. | 1.1 | 6 |
| 77 | Self-Shortening of Femtosecond Laser Pulses Propagating in Rare Gas Medium. Japanese Journal of Applied Physics, 1999, 38, L978-L980. | 0.8 | 6 |
| 78 | Broadband extreme ultraviolet multilayer mirror for supercontinuum light at a photon energy of 35-65 eV. Applied Optics, 2009, 48, 5464. | 2.1 | 6 |
| 79 | High-power generation of 16-Î¼m second-Stokes pulses in an ortho-deuterium Raman laser. Optics Communications, 1997, 133, 185-188. | 1.0 | 5 |
| 80 | Plasma-induced spectral broadening of high-energy ultrashort laser pulses in a helium-filled multiple-pass cell. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 1946. | 0.9 | 5 |
| 81 | Theoretical evaluation of the rareâ€gas diluent effects for an electronâ€beamâ€excited XeCl laser. Applied Physics Letters, 1983, 42, 766-768. | 1.5 | 4 |
| 82 | Observation of two different types of optical supercontinua: Structured and structureless. Physical Review A, 2006, 74, . | 1.0 | 4 |
| 83 | Highâ€efficiency, highâ€energy operation of an intense electron beam initiated HF chemical laser using a mixture containing a heavy fluoride MoF6. Applied Physics Letters, 1986, 49, 122-124. | 1.5 | 3 |
| 84 | Comparative study of lowâ€pressure rareâ€gas fluoride/chloride lasers excited by a shortâ€pulse electron beam. Journal of Applied Physics, 1988, 64, 1720-1725. | 1.1 | 3 |
| 85 | Line narrowing and frequency stabilization of high-pressure CO/sub 2/ laser by means of injection locking with multi-isotope master oscillator. IEEE Journal of Quantum Electronics, 1994, 30, 2670-2675. | 1.0 | 3 |
| 86 | Ortho-deuterium Raman laser using the S/sub 0/(2) rotational transition in the mid-infrared region. IEEE Journal of Quantum Electronics, 1997, 33, 2174-2177. | 1.0 | 3 |
| 87 | Attosecond Pulse Generation Using High Harmonics of the KrF Laser Driver Pulse. Japanese Journal of Applied Physics, 1998, 37, L733-L736. | 0.8 | 3 |
| 88 | Attosecond Pulse Generation in He Gas with Few-cycle KrF Driver Pulses. Japanese Journal of Applied Physics, 1999, 38, 6298-6301. | 0.8 | 3 |
| 89 | Koprinkovet al.Reply:. Physical Review Letters, 2001, 87, . | 2.9 | 3 |
| 90 | Polarization of multiple rotational Raman sidebands from hydrogen gas by delayed four-wave Raman mixing in the femtosecond regime. Optics Letters, 2002, 27, 1917. | 1.7 | 3 |

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| 91 | Ar and Ne Diluent Gas Effects on Output Performance of Electron-Beam-Excited Xe Cl Lasers. The Review of Laser Engineering, 1984, 12, 11-20. | 0.0 | 3 |
| 92 | Novel Operational Regime Of High-Efficiency KrF Lasers. Proceedings of SPIE, 1984, , . | 0.8 | 2 |
| 93 | Reduction of operating pressure for continuous frequency tuning in transversely excited high-pressure CO_2 lasers. Optics Letters, 1993, 18, 1807. | 1.7 | 2 |
| 94 | Measurement of Conversion Rate of Para- to Ortho-Hydrogen and Its Regeneration in Raman Laser for Isotope Separation of Uranium.. Nippon Genshiryoku Gakkaishi/Journal of the Atomic Energy Society of Japan, 1994, 36, 1147-1151. | 0.0 | 2 |
| 95 | Stable propagation of non-Gaussian beams in a multiple-pass cell. Applied Optics, 1997, 36, 3413. | 2.1 | 2 |
| 96 | Prompt and precise frequency tuning of a transversely excited CO2 laser by means of intracavity active frequency shift. Optics Communications, 1997, 133, 245-251. | 1.0 | 2 |
| 97 | Coherent control of mutiphoton excitation process for biological fluorescence imaging. , 2005, , . | | 2 |
| 98 | Focusing Intense High-Order Harmonics to a Micron Spot Size. Springer Series in Chemical Physics, 2007, , 183-198. | 0.2 | 2 |
| 99 | Generation of Light Bullets. , 2001, , 355-358. | | 2 |
| 100 | Annular-Beam Pumped Para-Hydrogen Raman Laser. Japanese Journal of Applied Physics, 1996, 35, 5714-5717. | 0.8 | 1 |
| 101 | Wideband Tuning of a High-PressureCO2Laser by means of Intracavity Active Frequency Shift. Japanese Journal of Applied Physics, 1997, 36, 7202-7206. | 0.8 | 1 |
| 102 | Vibrational spectroscopy and predissociation of UF6 clusters in a supersonic Laval nozzle. Journal of Molecular Structure, 1997, 410-411, 299-304. | 1.8 | 1 |
| 103 | Explicit control of spectral distribution in impulsively stimulated rotational Raman scattering. Applied Physics B: Lasers and Optics, 2002, 74, s103-s105. | 1.1 | 1 |
| 104 | Tunable narrowband quasi-modeless laser. Optics Communications, 2003, 225, 371-376. | 1.0 | 1 |
| 105 | ENERGY TRANSMITTANCE AND SPATIAL PHASE IMPROVEMENT OF INTENSE ULTRASHORT LASER PULSES IN GAS-FILLED HOLLOW FIBER USING PRESSURE GRADIENT METHOD. Journal of Nonlinear Optical Physics and Materials, 2004, 13, 291-299. | 1.1 | 1 |
| 106 | Sub-10 fs multi-mJ Ti:sapphire laser system with a pressure-gradient hollow fiber. Springer Series in Chemical Physics, 2005, , 28-30. | 0.2 | 1 |
| 107 | Generation of a completely dense femtosecond optical supercontinuum. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, L203-L209. | 0.6 | 1 |
| 108 | Nonlinear Optical Microscopy Employing Ultra-Broadband Femtosecond Laser Pulses. The Review of Laser Engineering, 2011, 39, 893-903. | 0.0 | 1 |

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| 109 | Non-collinear high-order harmonic generation in ionized media. , 2015, , . | | 1 |
| 110 | Measurement of two-photon excitation spectrum of various fluorophores with Fourier transform nonlinear spectroscopy. , 2009, , . | | 1 |
| 111 | Adaptive control of two-photon fluorescence from green fluorescent protein by shaped femtosecond excitation pulses. , 2003, , . | | 0 |
| 112 | Control of the spectral broadening of tens-millijoules laser pulses in an argon-filled hollow fiber using a conjugate pressure gradient. Springer Series in Chemical Physics, 2005, , 46-48. | 0.2 | 0 |
| 113 | Focusing of soft-x-ray high-order harmonics and ablation of metal surface. , 2006, , . | | 0 |
| 114 | Continuum Harmonic Radiation in the Extreme Ultraviolet Region Using Synthesized Sub-10-fs Two-Color Field. Springer Series in Chemical Physics, 2007, , 24-26. | 0.2 | 0 |
| 115 | Dependence of the photobleaching of fluorescent proteins on the repetition rate of femtosecond light pulses. , 2013, , . | | 0 |
| 116 | Nonlinear Fourier-transform spectroscopy using ultrabroadband pulses for measurement of photobleaching spectra of fluorescent proteins. , 2014, , . | | 0 |
| 117 | Dark state dynamics of fluorescent proteins investigated by fluorescence transients. , 2015, , . | | 0 |
| 118 | Characterizing inner-shell transition induced by isolated attosecond pulse. , 2015, , . | | 0 |
| 119 | Compression of self-guided femtosecond laser pulses in solid bulk medium at normal dispersion regime. , 2001, , . | | 0 |
| 120 | Adaptive Control of Two-Photon Excitation of Green Fluorescent Protein with Shaped Femtosecond Pulses. Springer Series in Optical Sciences, 2004, , 449-454. | 0.5 | 0 |
| 121 | Nonlinear Optics in Hollow Fibers. The Review of Laser Engineering, 2005, 33, 18-21. | 0.0 | 0 |
| 122 | Generation of 5-fs, 5-mJ Pulse Using Hollow-Fiber Pulse Compression at 1 kHz. , 2010, , . | | 0 |
| 123 | Spatial Overlap Modulation Nonlinear Optical Microscopy for High-resolution Deep Imaging. , 2013, , . | | 0 |
| 124 | Temporal focusing microscopy with structured illumination for super-resolution deep imaging. , 2014, , . | | 0 |
| 125 | Nonlinear Fourier-transform spectroscopy using ultrabroadband femtosecond pulses for the measurement of photobleaching of fluorescent proteins. , 2014, , . | | 0 |
| 126 | High-efficiency ArF laser using an atmospheric pressure argon-rich mixture pumped by an intense electron beam. , 1986, , . | | 0 |

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| 127 | Measurement of Photobleaching Spectra of Fluorescent Proteins Using Nonlinear Fourier-Transform Spectroscopy. The Review of Laser Engineering, 2015, 43, 213. | 0.0 | 0 |
| 128 | Properties of HF Chemical Laser Initiated by Inclined Electron-Beams. The Review of Laser Engineering, 1983, 11, 825-833. | 0.0 | 0 |
| 129 | Stabilizing the carrier-envelope phase of an amplified Ti:sapphire laser pulse to a noise level of sub-100 mrad. Journal of the Optical Society of America B: Optical Physics, 0, , . | 0.9 | 0 |