Logo

Description automatically generated with medium confidence

|  |
| --- |
| Proposal Template Instructions  This is the template that must be used for proposals submitted for consideration by LaserNetUS for Cycle 7: Regular User Proposals. **Proposals are limited to 6 pages in PDF format**, not including four appendixes: (I) References; (II) Tentative Research Team; (III) Technical Parameter Table; and (IV) Target Support Request.  **The grey boxes throughout the document provide section-specific character limits (including spaces), instructions, and writing prompts. They should be deleted before submission.**  The content should be written in Times New Roman 11pt font, single-spaced, and aligned in mode “justify”. Please make sure to set the following normal margins: top, bottom, right, and left: 1.0” (2.5 cm). Figure captions should be Times New Roman 9pt font, *italicized*.  Use the following main sections, appearing in **bold**, and include additional numbered subsections as needed to enhance the readability of the proposal.  If this proposal is the continuation of a previously awarded experiment on any of the LaserNetUS facilities, a progress report (with a 2000-character limit) should be added separately in the proposal submission system. It should include the following information: the proposal number(s), dates of experiment(s), facilities/instrument(s) used, and a brief summary of the experiment and how results have been disseminated (list major invited talks, papers published or in press, awards or special recognition).  If you have any questions on the use of this template, please contact [Chandra Breanne Curry](mailto:ccurry@slac.stanford.edu?subject=LaserNetUS%20Cycle%205%20Proposal%20Question) or [Matthew Edwards](mailto:mredwards@stanford.edu?subject=LaserNetUS%20Cycle%207%20Proposal%20Question). |

LaserNetUS Proposal for Cycle 7  
Regular User Proposal

|  |
| --- |
| Cycle 7 Experiment Dates: September 2025\*–August 2026 *\*The earliest start date will depend on facility readiness and proposal feasibility.*  **Proposal Deadline: Monday, December 16, 2024, 4PM PT** |

**Title of Proposed Experiment**

|  |
| --- |
| Provide a descriptive title of your proposed experiment that will be made public if awarded experiment time. |

|  |  |
| --- | --- |
|  |  |
| **Principal Investigator (PI):**  First Name Last Name  Division/Department  Institution  Job Title/Role  Mailing Address Line 1  Mailing Address Line 2  E: abc@xyz.edu  T: +1 (xxx) xxx-xxxx*​​* | **Co-PI(s):**  First Name Last Name  Division/Department  Institution  Job Title/Role  Mailing Address Line 1  Mailing Address Line 2  E: abc@xyz.edu  T: +1 (xxx) xxx-xxxx*​​* |

|  |
| --- |
| The “**PI**” typically conceives of the idea, designs the experiment, and leads the experimental team and analysis effort. **A "Co-Principal Investigator" (Co-PI) is a mandatory requirement for all submissions when a student or postdoctoral researcher assumes the role of Principal Investigator (PI)**. In such scenarios, the Co-PI typically is the student’s supervisor or manager, taking on the responsibility of training, oversight, securing funding, and providing the necessary resources to facilitate the experiment. Moreover, the Co-PI serves as the primary point of contact (POC) in the event the student or postdoc PI leaves the project.  We firmly believe that it is best practice that student and postdoc PIs be mentored by a more experienced team member who is consistently present at the facility throughout the experiment. In situations where this may not be feasible, the student or postdoc PI should conduct daily meetings with their supervisor or Co-PI to coordinate activities and relay progress updates. It is highly recommended that the Co-PI be actively involved in all communications and, ideally, participates in all planning meetings with the facility.  *A list of all participants that you expect to be involved in the proposed research is required.* It should include students, designers/modelers, target fabrication technicians, etc. This information is collected in Appendix II: Tentative Research Team.  **ALL individuals listed in the Tentative Research Team must have a UPS account and be added electronically to the proposal submission or the proposal will be deemed incomplete and not considered**. This information is critical to assess whether the team/collaboration has adequate experience and staffing levels are compatible with the support provided by the facility. |

# Abstract

|  |
| --- |
| **Abstract Character Limit: 1,900**  Provide an abstract that concisely summarizes the proposed experiment. Emphasize the hypothesis to be tested, expected scientific results, and impact. Indicate the observables to be measured (or the relevant experimental approach), samples to be studied, etc. State the primary LaserNetUS facility. |

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed porta non ex a dictum. Etiam vel finibus felis. Cras et tellus ut mauris tempus viverra. Ut at commodo odio. Vivamus iaculis orci vel tincidunt varius. Ut in porta nisi, sit amet imperdiet ligula. Morbi vulputate ornare placerat. Morbi bibendum sit amet tellus et rhoncus. Donec id mollis eros, at molestie dolor. Vestibulum risus libero, congue eget pharetra ac, consequat et magna. In vehicula, eros sed lacinia blandit, lectus neque sagittis tellus, eget ornare nulla massa quis diam. Proin feugiat imperdiet dolor ac mollis. Nulla posuere vel quam ut varius. Nunc euismod est eros. Fusce sit amet suscipit felis. Nam et dolor molestie, lobortis ex in, faucibus eros. Etiam a cursus quam, vitae volutpat tellus. Nunc aliquet varius felis, in vulputate felis aliquam ut. Nunc ut odio eget velit molestie condimentum. Integer interdum lacinia erat, et tristique ante vehicula eu. Curabitur magna ex, tristique in metus vitae, ullamcorer lacinia ante. Vestibulum sit amet gravida lorem. Curabitur fringilla, risus nec lacinia imperdiet, eros velit gravida dolor, a pulvinar ex enim quis enim. Curabitur ac enim maximus nibh viverra porta a sit amet ipsum. Mauris risus nulla, maximus ac finibus a, viverra vel ipsum. Donec gravida ipsum ac tristique pellentesque. Integer at ante non lacus aliquam suscipit sit amet eget arcu. Suspendisse commodo ex at nibh ultrices, rhoncus porta ex malesuada. Proin sapien justo, imperdiet ac rutrum a, finibus id augue. Proin ultricies vel nisl a vehicula. Proin bibendum ac lectus vel luctus. Donec finibus ante orci, vitae maximus mauris sodales sit amet. Sed suscipit erat eget tellus bibendum interdum. Vestibulum accumsan mattis placerat. Proin vel vulputate nulla. Sed non laoreet magna, laoreet interdum odio. Nunc tristique leo sit amet metus convallis, eget rhoncus turpis elementum. Morbi nu.

**PAGE BREAK***end of first page*



**Introduction**

|  |
| --- |
| **Introduction Character Limit: 2,000**  This should briefly introduce the topic including essential background, context, and references for a general, **non-expert** audience.  References should be numbered in the order in which they appear in the proposal in the following format [1], [4-7], [2, 3, 12-14].  Consider the following questions to guide your writing:   * What is the topical area? * What is the scientific importance of this topic and potential societal impact? * What is the current state of knowledge, and where are the significant knowledge gaps or outstanding questions (and why)? |

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean eget est et nibh cursus tincidunt vel sed lorem. Phasellus lacinia sodales erat, id luctus nisi ultricies sit amet. Proin placerat eros eu diam dapibus, at posuere ligula fermentum. Vestibulum nec nibh feugiat, cursus tortor eget, semper lorem. Aenean pretium sem in euismod pharetra. Nunc ullamcorper mollis tellus, vel condimentum nunc tempus non. Aenean ullamcorper eros ut viverra convallis. Quisque aliquet sed orci non facilisis. Praesent eget nibh vitae quam ultrices ultrices ac rhoncus ipsum. Donec vel justo tempor, semper risus convallis, mollis massa. Vivamus leo sem, tempor at tempus et, luctus vitae ex.

Ut rutrum tortor eget erat ullamcorper gravida. Aliquam pretium ligula ut mollis molestie. Fusce leo dolor, suscipit placerat tellus non, tempor dignissim nunc. Mauris a vulputate metus, nec imperdiet nisi. Donec sodales, nisl a laoreet posuere, lorem eros eleifend mauris, a mattis diam justo vel augue. Phasellus tincidunt, felis non posuere gravida, elit magna laoreet dui, ut mollis tellus leo et dolor. Nulla dapibus nisl nibh, vel sagittis nunc mollis in. Vivamus nec cursus ligula. Duis risus odio, vulputate sed odio eu, vehicula consequat nunc. Nunc non semper diam. Sed egestas sapien et porta fermentum. Morbi sed scelerisque ante, a dignissim velit. Nullam quis ultricies quam, et ullamcorper sapien. Aliquam finibus, ex eu rutrum accumsan, lacus neque pharetra neque, finibus ullamcorper erat elit sit amet quam. Ut libero ligula, ultrices in ante et, rutrum lacinia urna. Maecenas magna neque, vulputate quis pretium eu, gravida sed erat.

Vestibulum sagittis varius ex, non congue tortor tempor at. Proin eu ligula viverra, consectetur ipsum nec, condimentum orci. Nullam quis luctus sapien. Donec maximus risus sit amet erat tincidunt, non interdum risus gravida. Donec vulputate magna vitae imperdiet volutpat. Interdum et malesuada fames ac ante ipsum primis in faucibus. Vestibulum non condimentum id.

**Scientific or Technical Case**

|  |
| --- |
| **Scientific or Technical Case Character Limit: 5,000**  Recommended: 1 figure  Focus on the scientific (or technical) objectives of the proposed experiments. This section should be highly detailed; however, it is important that it be thoroughly referenced such that reviewers from a related research area have adequate information to assess this work in the context of the topical area.  Use the following questions to guide your writing:   * What is the hypothesis to be tested, or what essential question is to be addressed in these experiments? * What are the experimental observables, and how will these observables address the main scientific (or technical) objectives of the proposal? Modeling and/or prior results that can quantify the expected observables should be presented wherever possible-see "feasibility" section below. * Describe how the experiment has been designed using theory, simulations, or previous work. * What measurements are required for the proposed experiment to be considered a success? If successful, what will be the impact on your topical area?   Provide a roadmap for the analysis and interpretation of the experimental measurements to answer the hypothesis/essential questions of this experiment. **Consider including a description of the role of theory, simulations, or analysis methods post-experiment.** |

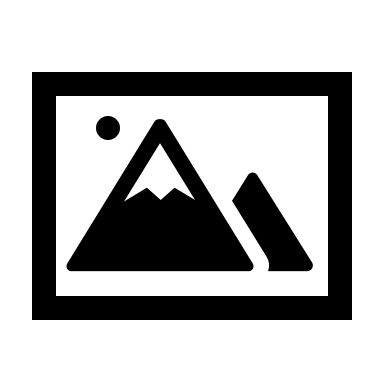
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum interdum cursus dictum. Donec eleifend eros at viverra luctus. Ut placerat mollis est eu eleifend. Nulla magna risus, ultrices eget pretium a, aliquet vel ligula. Nam ante lorem, fermentum gravida justo eget, commodo maximus justo. Phasellus nunc ligula, congue ut ultricies tempus, malesuada vitae erat. Nullam sapien elit, rutrum mollis felis porta, accumsan viverra odio. Integer odio risus, aliquet vel tristique non, placerat ut lorem. Praesent pellentesque ac mauris vulputate dictum. Nam sed libero facilisis, accumsan lacus ut, elementum est. Cras euismod, est sit amet sollicitudin mollis, lorem nunc mollis metus, vel fermentum nisi justo et nunc. Orci varius natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Figure 1: Descriptive Caption.

Aenean venenatis rhoncus velit. Vestibulum ultrices tellus vitae nisl iaculis, ut bibendum massa ultricies. Nullam fermentum, justo a rhoncus porttitor, lacus nisl suscipit ipsum, ut venenatis sapien lectus id metus. Etiam et auctor justo. Nulla in erat a nulla accumsan lacinia. Donec in vehicula est. Pellentesque hendrerit metus sed varius venenatis. Aliquam a massa orci. Praesent a pretium justo, non fermentum libero. Vestibulum ac orci vitae nisi cursus dignissim. Quisque commodo turpis eu ligula pulvinar, in molestie odio lacinia. In in lorem nec ipsum condimentum auctor. Ut blandit tortor vitae erat fermentum, et congue elit hendrerit.

Nullam rutrum gravida ipsum, ut porta velit eleifend dignissim. Curabitur aliquet tristique enim. Integer sagittis mauris in efficitur tempor. Phasellus faucibus, felis ac dapibus tempus, lacus mauris aliquam elit, ac feugiat arcu quam condimentum velit. Maecenas vel mollis velit. In pretium sit amet ex sed accumsan. Curabitur tincidunt arcu at arcu lacinia sodales. Duis accumsan quam vitae congue elementum. Phasellus volutpat lorem dui, sit amet eleifend magna vestibulum vel.

Cras id augue iaculis, lacinia felis quis, facilisis nunc. Fusce congue dolor urna, vel commodo mi pharetra vel. Nullam elementum, arcu ac tempus pharetra, velit risus blandit tellus, in auctor velit felis id magna. Nullam hendrerit finibus metus, et blandit leo lobortis non. Etiam tristique ante erat, eu pretium justo suscipit at. Quisque sit amet felis nibh. Proin nec augue cursus, elementum purus vel, finibus arcu. Donec varius ipsum odio. Proin molestie justo id ante scelerisque viverra. Phasellus rutrum mollis metus. Proin sagittis facilisis quam quis vestibulum. Pellentesque lobortis, enim eget pretium facilisis, mi mauris sodales lacus, nec rhoncus sem lacus id tortor.

Mauris condimentum mollis neque a iaculis. Duis eget maximus erat. Nullam fringilla enim at nisl bibendum interdum. Orci varius natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Ut vel iaculis nisi, vitae congue quam. Proin nunc massa, suscipit in feugiat aliquet, pulvinar et libero. Quisque tellus justo, consequat eu nibh in, elementum luctus felis. Nulla sagittis est sem, ac ornare sem accumsan vel. Cras ullamcorper convallis odio et pellentesque. Phasellus porttitor, mi ut ultrices varius, odio eros pretium enim, sit amet lacinia lectus tortor id nunc. Sed laoreet, ipsum quis aliquet laoreet, sapien justo scelerisque libero, at venenatis enim sem quis justo.

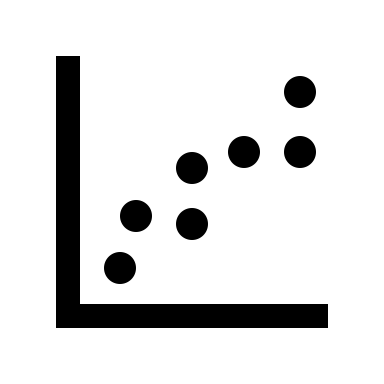
Nulla finibus est id nulla scelerisque, vel efficitur ipsum semper. Sed vitae ornare nulla. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia curae; Phasellus consequat nisl at nulla varius cursus. Fusce at nisl arcu. Duis vel posuere mi, placerat consectetur ante. Cras imperdiet, massa ac pellentesque euismod, magna justo accumsan eros, nec dictum enim purus in urna. Phasellus id neque mauris. Pellentesque quis sapien lacus. Orci varius natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Nam sed sapien orci. Nulla consectetur mattis pharetra.

Curabitur in justo mi. Aliquam blandit urna id dapibus rhoncus. Morbi suscipit, nulla vitae ornare congue, metus ipsum lacinia nisl, id varius elit nulla eget nulla. Fusce iaculis finibus diam ut dictum. Vivamus sit amet semper enim. Etiam aliquet a libero ac accumsan. Vestibulum nibh risus, condimentum at euismod in, tempus et justo. Curabitur rhoncus lacus dolor, eget congue mi molestie eu. Nullam quis bibendum nibh. Aliquam dapibus ex sed velit pellentesque, at sagittis leo finibus. Aliquam quis justo elit. Maecenas dictum enim quis scelerisque porta. Etiam convallis dui libero, sit amet bibendum ligula tempus non. Fusce egestas fringilla lorem, ac finibus magna molestie ac. Pellentesque posuere condimentum cursus.

Sed id justo a eros tristique molestie gravida in quam. Suspendisse interdum magna vitae massa mollis, non dignissim elit sodales. Praesent gravida viverra est, a congue massa porttitor sit amet. Praesent volutpat aliquet pellentesque. Vivamus tincidunt at mi non facilisis. Proin mollis est at bibendum cursus. Aliquam nec mi erat. Donec aliquet leo.

**Experimental Details**

|  |
| --- |
| **Experimental Details Character Limit: 2,000**  Recommended: 1 figure  Proposals must contain sufficient information for the LaserNetUS Proposal Review Panel (PRP) and facility scientists to review the proposal for technical feasibility and/or suitability at the primary and secondary LaserNetUS facilities. We strongly recommend that you contact the POC at your primary and secondary facilities to schedule a meeting with the facility scientist(s) **before proposal submission** to discuss capabilities, identify possible problems in integrating external equipment with the LaserNetUS facility, and determine possible solutions.    Note: Additional experimental details of short-listed or awarded experiments will be requested later; intricate experiment details do not need to be captured within the main proposal.  We make every effort to award experiments at the primary facility. We understand the difficulty of designing and writing a proposal that covers the complexities and differences at two different LaserNetUS facilities within the 6-page limit. **The PRP will rank a proposal for the primary facility that was requested and will only consider it at the secondary facility if it was not competitive at the primary facility. If a proposal was not competitive at the primary or secondary facility, the PRP may recommend an alternative facility if available. In this case, the PI may accept or decline the transfer to the alternative facility.**  These questions will be used in the evaluation of the proposal:   * What is the primary and secondary LaserNetUS facility? * Why is the primary LaserNetUS facility essential for this experiment? Be specific about the most important (unique) capabilities, instrumentation, expertise, partnerships, etc., that will enable the proposed experiment. * What is the experimental set-up and/or procedure?   Consider the following additional questions, as applicable, to guide your writing:   * What previous experiments or development work has been performed? Describe any preliminary results, simulations, designs, or supporting experiments. * What are the key elements required of the proposed experimental set-up to successfully execute the experiment? * If your proposed work relies on high-repetition rate to obtain a statistically significant measurement, what are the anticipated data rates? * What additional key equipment (i.e., equipment that is not presently available at the LaserNetUS facility) is needed, including laser, detector, sample delivery/environment, temperature, pressure, etc.? What are the plans and timeline for securing this additional equipment (e.g., through collaboration, upcoming purchases)? * How soon do you anticipate being ready for the experiment if notified in Spring 2025? This information will be used for scheduling purposes only and will not impact the ranking of your proposal by the PRP. |



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean eget est et nibh cursus tincidunt vel sed lorem. Phasellus lacinia sodales erat, id luctus nisi ultricies sit amet. Proin placerat eros eu diam dapibus, at posuere ligula fermentum. Vestibulum nec nibh feugiat, cursus tortor eget, semper lorem. Aenean pretium sem in euismod pharetra. Nunc ullamcorper mollis tellus, vel condimentum nunc tempus non. Aenean ullamcorper eros ut viverra convallis. Quisque aliquet sed orci non facilisis. Praesent eget nibh vitae quam ultrices ultrices ac rhoncus ipsum. Donec vel justo tempor, semper risus convallis, mollis massa. Vivamus leo sem, tempor at tempus et, luctus vitae ex.

Figure 2: Descriptive Caption

Ut rutrum tortor eget erat ullamcorper gravida. Aliquam pretium ligula ut mollis molestie. Fusce leo dolor, suscipit placerat tellus non, tempor dignissim nunc. Mauris a vulputate metus, nec imperdiet nisi. Donec sodales, nisl a laoreet posuere, lorem eros eleifend mauris, a mattis diam justo vel augue. Phasellus tincidunt, felis non posuere gravida, elit magna laoreet dui, ut mollis tellus leo et dolor. Nulla dapibus nisl nibh, vel sagittis nunc mollis in. Vivamus nec cursus ligula. Duis risus odio, vulputate sed odio eu, vehicula consequat nunc. Nunc non semper diam. Sed egestas sapien et porta fermentum. Morbi sed scelerisque ante, a dignissim velit. Nullam quis ultricies quam, et ullamcorper sapien. Aliquam finibus, ex eu rutrum accumsan, lacus neque pharetra neque, finibus ullamcorper erat elit sit amet quam. Ut libero ligula, ultrices in ante et, rutrum lacinia urna. Maecenas magna neque, vulputate quis pretium eu, gravida sed erat.

Vestibulum sagittis varius ex, non congue tortor tempor at. Proin eu ligula viverra, consectetur ipsum nec, condimentum orci. Nullam quis luctus sapien. Donec maximus risus sit amet erat tincidunt, non interdum risus gravida. Donec vulputate magna vitae imperdiet volutpat. Interdum et malesuada fames ac ante ipsum primis in faucibus. Vestibulum non condimentum id.

**Feasibility Assessment for Primary Facility**

|  |
| --- |
| **Feasibility Assessment for Primary Facility Character Limit: 2,000**  Required: 1 set-up schematic, 1 table describing experiment schedule  Briefly describe the experiment set-up or geometry. Provide a schematic diagram including key equipment and laser beam paths. The POC at each LaserNetUS facility can provide additional information and recommendations if assistance is required.  Each facility has a table of key laser parameters on the LaserNetUS website: <https://lasernetus.org/facilities/>. Describe the required laser parameters such as wavelength, focal spot quality, repetition rate, pulse contrast, pulse energy, and pulse duration required for the proposed experiment. If anything beyond the parameters listed in the parameter table is required (e.g., polarization, bandwidth, chirp, etc.), provide a detailed description. Specify any timing and synchronization requirements.  Describe the targets and/or samples that will be used. Include any required non-standard sample preparation, storage, or alignment.  Describe any additional required resources (e.g., access to local facilities, labs, advanced testing, unique sample preparation, delivery storage requirement.)  Describe any known risks that may prevent the successful execution of the proposed experiment such as sourcing targets, equipment (e.g., availability of equipment that will be loaned from another institution), or materials (e.g., new/untested manufacturer, long lead times). Are there any potential changes in personnel availability (e.g., PhD student graduating) during Cycle 7 that determine when the experiment could be performed?  Provide a table outlining the experiment schedule. The typical experiment duration awarded by LaserNetUS varies by facility—please discuss the number of days/shifts that should be requested for your experiment with the facility Point of Contact prior to submitting the proposal. |

  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean eget est et nibh cursus tincidunt vel sed lorem. Phasellus lacinia sodales erat, id luctus nisi ultricies sit amet. Proin placerat eros eu diam dapibus, at posuere ligula fermentum. Vestibulum nec nibh feugiat, cursus tortor eget, semper lorem. Aenean pretium sem in euismod pharetra. Nunc ullamcorper mollis tellus, vel condimentum nunc tempus non. Aenean ullamcorper eros ut viverra convallis. Quisque aliquet sed orci non facilisis. Praesent eget nibh ljjj

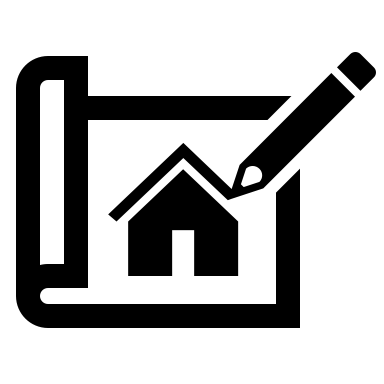


Figure 3: Descriptive Caption

vitae quam ultrices ultrices ac rhoncus ipsum. Donec vel justo tempor, semper risus convallis, mollis massa. Vivamus leo sem, tempor at tempus et, luctus vitae ex.

Ut rutrum tortor eget erat ullmcorper gravida. Aliquam pretium ligula ut mollis molestie. Fusce leo dolor, suscipit placerat tellus dignissim nunc. Mauris a vulputate metus, nec imperdiet nisi. Donec sodales, nisl a laoreet posuere, lorem mattis diam justo vel augue. Phasellus tincidunt, felis non posuere gravida, elit magna laoreet dui, ut mollis tellus leo et dolor. Nulla dapius nisl nibh, vel sagittis nunc mollis in. Vivamus nec cursus ligula. Duis risus odio, vulputate sed odio eu, vehicula consequat nunc. Nunc non semper diam. Sed egestas sapien et porta fermentum. Morbi sed scelerisque ante, a dignissim velit. Nullam quis ultricies quam, et ullamcorper sapien. Aliquam finibus, ex eu rutrum accumsan, lacus neque pharetra neque, finibus ullamcorper erat elit sit amet quam. Ut libero ligula, ultrices in ante et, rutrum lacinia urna. Maecenas magna neque, vulputate quis pretium eu, gravida sed erat.

|  |  |
| --- | --- |
| Week 0 (set-up) | Vestibulum sagittis varius ex, non congue tortor tempor at. Proin eu ligula viverra, consectetur ipsum nec, condimentum orci. Nullam quis luctus sapien. |
| Week 1 | Donec maximus risus sit amet erat tincidunt, non interdum risus gravida. Donec vulputate magna vitae imperdiet volutpat |
| Week 2 | Interdum et malesuada fames ac ante ipsum primis in faucibus. |

*Table 1: Proposed experimental schedule*

|  |
| --- |
| Before preparing the experiment schedule, we strongly recommend you discuss the typical set-up and experiment lengths with the facility POC.  The experiment schedule table should provide details such as—   * access/facility support (e.g., Week 0: microscope lab access required to mount and inspect targets, Week 1: sonicator required daily from 4-6 PM) * targets (e.g., Week 1: scan target thickness using 0.1-10µm Al foils mounted on standard target frame) * laser requirements (e.g., Week 1: max energy, best compression, Week 2: 50% energy, best compression) * scans to be performed (Week 2: scan delay between pump and probe laser in steps of 0.1ps from -2.5 to 15 ps to collect interferometry data) * expected number of shots (e.g., Week 0: 10 test shots, Week 1: 400 shots/day) * major milestones (e.g., by the end of Week 1, the Thomson Parabola will be installed, aligned, and calibration shots will be complete) |

**Feasibility Assessment for Secondary Facility (Optional)**

|  |
| --- |
| **Feasibility Assessment for Secondary Facility Character Limit: 1,000**  Provide a summary of your assessment of the feasibility of this experiment at the secondary facility, specifically focusing on any changes that would be required from the experimental design and/or scope if awarded time at the secondary facility. |

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed auctor est a diam commodo accumsan. Vivamus at erat in ante faucibus sagittis. Nulla volutpat justo vel ornare aliquam. Praesent bibendum malesuada justo, sed consequat enim convallis ac. Morbi varius leo metus, vitae dictum est sagittis vitae. Aliquam ut efficitur quam, vel venenatis ex. Nullam ornare lacinia ligula, posuere tempor turpis commodo id. Aliquam eget est pretium, tincidunt lectus vitae, ultricies purus. Curabitur arcu libero, commodo luctus lorem in, pharetra auctor nibh. Pellentesque et urna pellentesque, sollicitudin mauris a, accumsan ex. Suspendisse ornare libero vel enim mattis, ac commodo arcu sollicitudin. Vivamus tristique sem eu orci gravida, nec facilisis augue aliquam. Donec ut nisl magna. Cras eu orci lorem. Nulla ut vehicula magna.

Aenean posuere semper augue, sed sodales urna ornare eleifend. Ut in ligula libero. Curabitur arcu quam, scelerisque nec ultricies eget, porttitor a diam. Donec tincidunt.

**Scientific Ecosystem Stewardship and Broader Impact**

|  |
| --- |
| **Scientific Ecosystem Stewardship and Broader Impact Character Limit: 2,000**  Workforce development and expanding the scientific ecosystem around the use of high-power lasers are key missions of LaserNetUS. In this section, we would like you to provide context for how the proposed work supports these values.  These questions may be used in the PRP’s evaluation of the proposal:   * Does this proposal provide academic or training opportunities to students or early-career researchers? If so, are the results of the proposed experiments for a thesis project? * What is the intended audience for these results? What is the venue or format in which the experimental results will be shared? * Describe how this proposal will increase or sustain community interest in the topical area (e.g. follow up experiments, new funding applications/research programs)? * To what extent does this proposal engage underrepresented groups or institutions?   Other questions you can consider, if applicable:   * Does this proposal engage with a new research group or institution that has not previously been involved with LaserNetUS? * To what extent will the project enhance the scientific, technical, or engineering infrastructure of LaserNetUS and result in a potential asset for the larger community? * Is the proposed work from a topical area that has not yet been awarded time through LaserNetUS? * Is the proposed experiment part of a larger project or program (e.g., NNSA Center of Excellence, Laboratory Directed Research and Development (LDRD), multi-institutional agreements)? |

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean eget est et nibh cursus tincidunt vel sed lorem. Phasellus lacinia sodales erat, id luctus nisi ultricies sit amet. Proin placerat eros eu diam dapibus, at posuere ligula fermentum. Vestibulum nec nibh feugiat, cursus tortor eget, semper lorem. Aenean pretium sem in euismod pharetra. Nunc ullamcorper mollis tellus, vel condimentum nunc tempus non. Aenean ullamcorper eros ut viverra convallis. Quisque aliquet sed orci non facilisis. Praesent eget nibh vitae quam ultrices ultrices ac rhoncus ipsum. Donec vel justo tempor, semper risus convallis, mollis massa. Vivamus leo sem, tempor at tempus et, luctus vitae ex.

Ut rutrum tortor eget erat ullamcorper gravida. Aliquam pretium ligula ut mollis molestie. Fusce leo dolor, suscipit placerat tellus non, tempor dignissim nunc. Mauris a vulputate metus, nec imperdiet nisi. Donec sodales, nisl a laoreet posuere, lorem eros eleifend mauris, a mattis diam justo vel augue. Phasellus tincidunt, felis non posuere gravida, elit magna laoreet dui, ut mollis tellus leo et dolor. Nulla dapibus nisl nibh, vel sagittis nunc mollis in. Vivamus nec cursus ligula. Duis risus odio, vulputate sed odio eu, vehicula consequat nunc. Nunc non semper diam. Sed egestas sapien et porta fermentum. Morbi sed scelerisque ante, a dignissim velit. Nullam quis ultricies quam, et ullamcorper sapien. Aliquam finibus, ex eu rutrum accumsan, lacus neque pharetra neque, finibus ullamcorper erat elit sit amet quam. Ut libero ligula, ultrices in ante et, rutrum lacinia urna. Maecenas magna neque, vulputate quis pretium eu, gravida sed erat.

Vestibulum sagittis varius ex, non congue tortor tempor at. Proin eu ligula viverra, consectetur ipsum nec, condimentum orci. Nullam quis luctus sapien. Donec maximus risus sit amet erat tincidunt, non interdum risus gravida. Donec vulputate magna vitae imperdiet volutpat. Interdum et malesuada fames ac ante ipsum primis in faucibus. Vestibulum non condimentum id.

**PAGE BREAK**



**Appendix I: References**

**[1]** A.N. Author, “*Title,*” Journal. volume, page (year); doi

**[2]** A.N. Author, “*Title,*” Journal. volume, page (year); doi

**[3]** A.N. Author, “*Title,*” Journal. volume, page (year); doi

**PAGE BREAK**



# Appendix II: Tentative Research Team

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Experiment Participation | First Name | Last Name | Email | Primary Affiliation | Secondary Affiliation  (if applicable) | Career Level | Tentative Role |
| On-site, remote support, not attending |  |  |  |  |  | Select from (12) options below | Select from (4) options below |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Tentative Research Team Supporting Narrative**

**First Name Last Name (PI)** has previously designed and led short pulse experiments using the ALEPH and Titan lasers. They have extensive experience in developing laser-pulse contrast enhancement setups1,2 and the generation and characterization of high-harmonic sources.3

**First Name Last Name (role, responsibility, task)** lorem ipsum dolor sit amet, consectetur adipiscing elit. Aliquam sapien massa, ultrices quis nisi non, gravida tincidunt lectus. Integer maximus eget ipsum nec interdum. Vivamus convallis eget tellus sed bibendum.

1A.N. Author, “*Title,*” Journal. volume, page (year); doi

2A.N. Author, “*Title,*” Journal. volume, page (year); doi

3A.N. Author, “*Title,*” Journal. volume, page (year); doi

|  |  |
| --- | --- |
| **Tentative Research Team Supporting Narrative Character Limit: 1,000 characters**  User support varies significantly at the different LaserNetUS facilities. In some cases, the technical feasibility of your proposal will depend on the number of on-site personnel and their previous experience. This table will be used by the facilities to assess the technical feasibility and likelihood of successfully executing the experimental goals.  Definitions of experiment participation are as follows:   * On-site: Individuals who will travel to the LaserNetUS facility to perform or supervise hands-on work in the laboratory before or during the scheduled experiment * Remote support: Can vary by team but may include individuals who perform remote data analysis, supervision, coordination, or observation * Not attending: Individuals involved in other aspects such as pre-experiment design or post-experiment analysis and interpretation   For the key personnel on the tentative research team (e.g., Lead-PI, personnel who will field primary diagnostics, overall supervision), provide 1-3 sentences detailing the following items:   * What is their role, responsibilities, or expected tasks? * Where or how did each individual obtain the experience necessary for the proposed experiment? Provide description or references to publications. * If applicable, what training or assistance will be required from the local facility personnel for their role, responsibilities, or expected tasks?   This list should exactly match the participants entered in the proposal submission portal. Please select from the following options for Career Level and Tentative Roll options: | |
| Career Level:   1. Undergraduate Student 2. Graduate Student 3. University Postdoctoral Researcher/Fellow/Scholar 4. University Research Associate 5. University Scientist 6. Laboratory Postdoctoral Researcher/Fellow/Scholar 7. Laboratory Research Associate 8. Laboratory Scientist 9. Assistant (Research) Professor 10. Associate (Research) Professor 11. (Research) Professor 12. Other | Tentative Role:   1. Experimental 2. Theory and Simulations 3. Supervision and Coordination 4. Other (please specify) |

**PAGE BREAK**



**Appendix III: Technical Parameter Table**

|  |  |  |
| --- | --- | --- |
| Parameter | Description | Comments/References |
| Target/Sample |  |  |
| Primary Measurement(s) |  |  |
| Secondary Measurement(s) |  |  |
| Laser Energy (J) |  |  |
| Laser Pulse Duration (fs/ps/ns) |  |  |
| Laser Focal Spot Size (µm) |  |  |
| Setup length (# of days) |  |  |
| Experiment length (# of days) |  |  |
| Other |  |  |

|  |
| --- |
| While this is a duplication of information requested in the body of the proposal, it will be used as a quick reference during the proposal review process. Please capture the key elements and details of the experiment execution in this table. Feel free to update/add additional categories as needed. |

**Appendix IV: Target Support Request**

|  |
| --- |
| Applicants can now request target fabrication support from the Michigan Target Research and Fabrication (MiTRF) Facility. In order to evaluate your request, it's essential that you provide detailed information that allows us to assess cost, complexity, lead times, and potential safety risks. MiTRF is primarily an assembly facility however, they can also provide consultation, procurement, and sample characterization support.  Please contact Sallee Klein ([salleer@umich.edu](mailto:salleer@umich.edu)) to discuss your target needs and provide the following information:   * Clearly state if you are using an existing target design or if any development is required. * Include target diagrams that feature materials, precise dimensions, and the quantity of assembled targets desired. * Specify tolerances for all dimensions, ensuring that measurements are as accurate as needed. * Define acceptable surface roughness if it's a critical parameter for your experiment. * Define the glue layer thickness/quality and/or glue-spot size/quality if they are essential parameters. * Provide quotes and lead times, where known and appropriate, for required materials or components. |

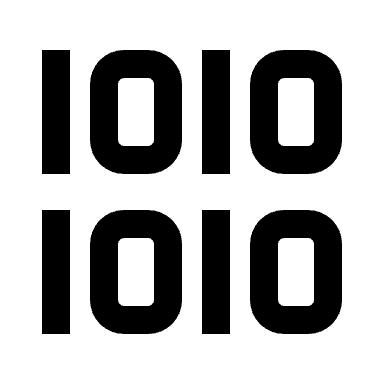
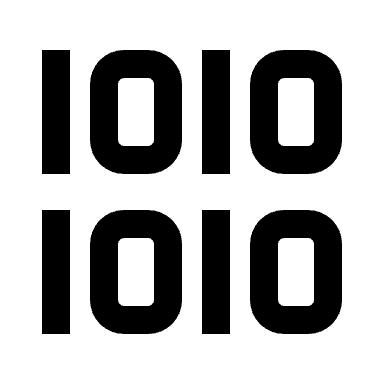
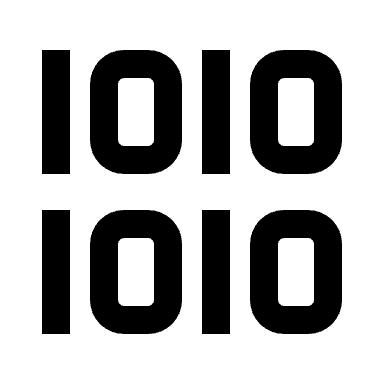


Figure: Target diagrams from multiple views with materials, dimensions, and tolerances specified.

Figure 4: Descriptive Caption