**ENS / IISER collaboration**

***Internship subject form***

To be sent back by **January 31st, 2020**

|  |  |
| --- | --- |
| Name of the institution | Ecole Normale Supérieure Paris-Saclay |
| Name of the host laboratory | LuMin |
| Website of the host laboratory | <http://ida.ens-paris-saclay.fr/>  https://is.gd/aSNiMK |
| Research group | Laser Matière |
| Internship number | CHEM 1 |
| Internship subject (title) | Laser induced Phase Separation |
| Prerequisites | Optics of phase contrast microscopes |
| Internship proposal: description and expected training outcomes (15 lines max.) | As reported by K.Wynne, we observe the separation of water from 1,4 Dioxane under a focused laser. You will explore the contribution of the self-focusing of the laser by the optical non linearity of the mixture to the liquid separation. You will have a Schlierenmicroscope, a pulsed laser and a fast camera.  (2018) F. Walton and K. Wynne. Nat Chem. 10, 5, 506-510. <http://dx.doi.org/10.1038/s41557-018-0009-8>  (2019) F. Walton and K. Wynne. Soft Matter. 15, 41, 8279-8289. http://dx.doi.org/10.1039/c9sm01297d |