

THORNTON LAB. [Underwater Photonics]

http://ocean.iis.u-tokyo.ac.jp

Seeing the ocean in a new light

ChemiCam Laser-induced plasmas for in situ chemical analysis

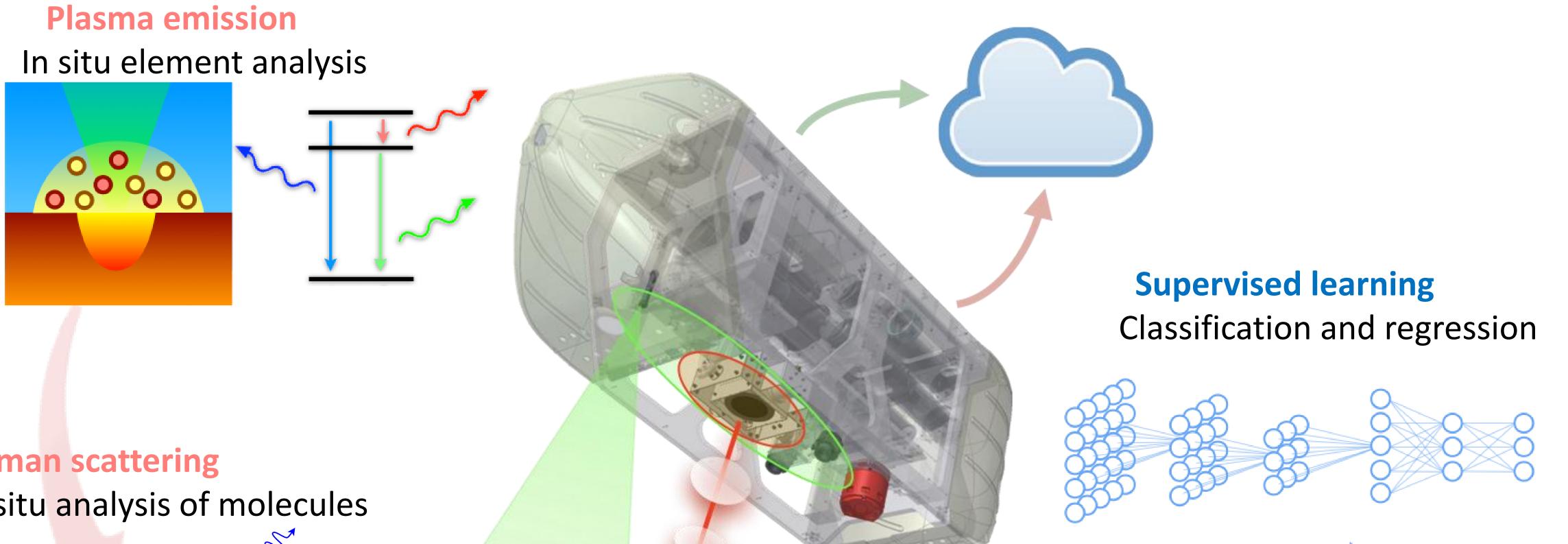
Information

Not in seeking new landscapes but in having new eyes ~ Marcel Proust



Underwater sensing is the raw material of how we perceive the ocean. We aim to improve how the ocean can be observed by investigating the interactions of photons in underwater environments and combining this with methods for automated information extraction.

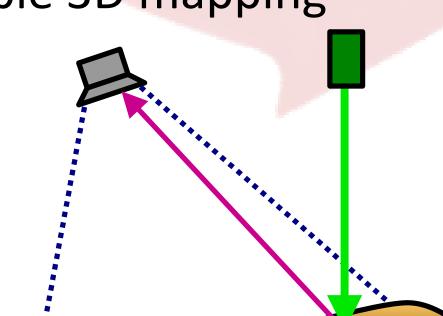
• Spectroscopy for in situ chemical analysis of the seafloor • Computer vision for scalable mapping of benthic environments Probabilistic modeling for automated information extraction



Raman scattering In situ analysis of molecules

Structured light Scalable 3D mapping

 M_{Λ}



Scintillation Monitoring of seafloor radiation

Data

