

From the stars to the cells

Born in Astronomy, Adaptive Optics has found its way into several new fields in recent years, helping to achieve earth-shattering discoveries in each one of them.

Microscopy has a vast array of imaging methods. Ever since Adaptive Optics adoption in the field, it has proven to be a crucial component helping biologists to look deep and neatly into the building blocks of life.

Visualizing in depth 3D samples

Confocal

Light-Sheet

Imaging deep tissue

Multi-Photon

Z-Scanning

Observing in vivo specimens

SIM

Widefield

Super Resolution **STORM**

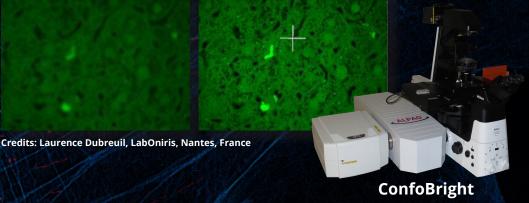
PAINT

STED

PALM

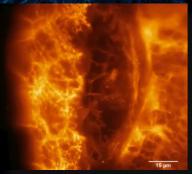
"In any application where you must study deep inside a specimen, an in vivo specimen or a clarified specimen, you must correct for optical aberrations. Without Adaptive Optics, we wouldn't have been able to study several samples while keeping them in their natural habitat and still getting images as close as possible to the ideal situation."

Antoine Delon, Researcher at LiPhy and Institute for Advanced Biosciences of Grenoble



"By using Adaptive Optics we can restore the performance of microscopes to the optimal, that is to the limits imposed by physics. Even though the specimen distorts the light, we can still recover the best images and hence the best scientific information out of those microscopes."

Martin Booth, Professor of Engineering Science at University of Oxford



Credits: Betzig Lab, Janelia Farm, HHMI



DM 97-15



SH-CMOS

ALPAO Microscopy related products

Wavefront Sens	ors	re Control
aAs SH-sCl	MOS	Core Engine
	CCD SH-CM iaAs SH-sCN	

