



O-band lasers: Wavelength Tunable & Single Frequency Lasers

EPIC Members New Product Release September 2026

Presentation by Dimitri Geskus, CTO of Chilas Lasers

Chilas Lasers, Tuned to your Wavelength

Chilas at a glance



2018

Foundation of Chilas

2020

First product launch: a tunable laser at 1550nm

2024

Fully integrated hybrid laser modules launched

Distributors in Japan, China, Turkey, UK, India, France, etc

Established supply chain for chips, assembly, packaging & electronics

High performing tunable laser modules

2026

Chilas Lasers, Tuned to your Wavelength

Around since 2018, led by photonic industry veterans



Dr. Dimitri Geskus



Dr. Sami Musa



Dr. René Heideman

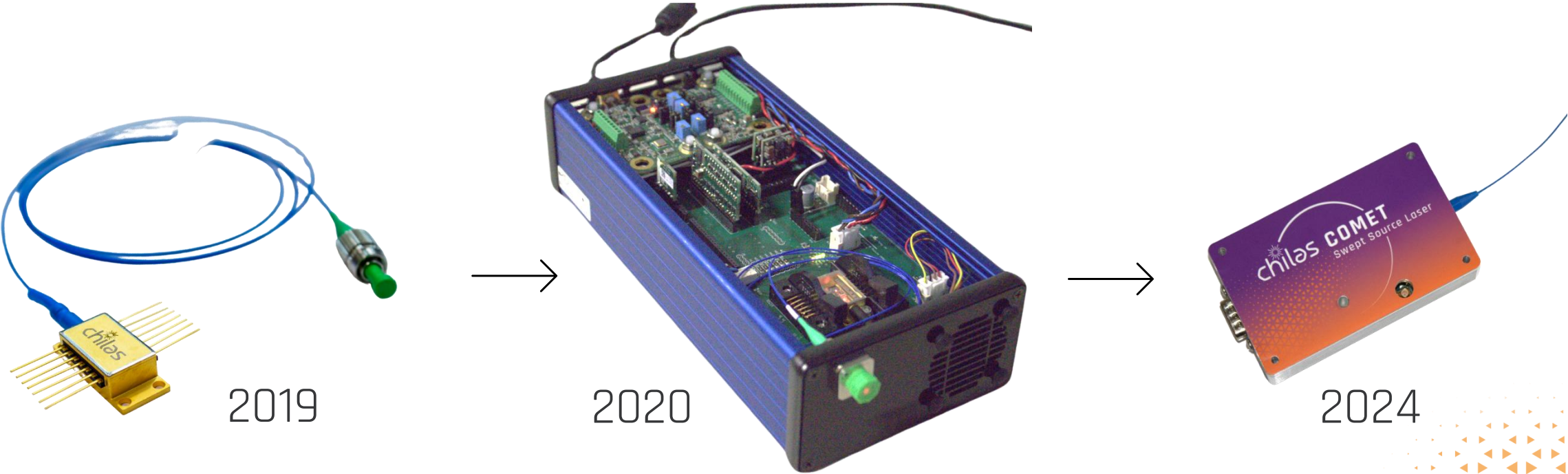


Dr. Shaoxian Zhang



Dr. Hans van den Vlekkert

Chilas lasers evolution

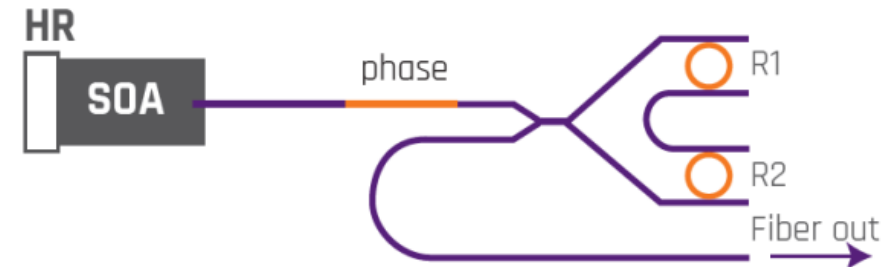


Unique technology: hybrid integrated external cavity laser

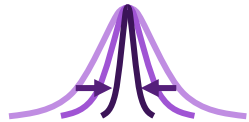
High output power



Provided by the semiconductor optical amplifier (SOA)



Ultra-narrow intrinsic linewidth

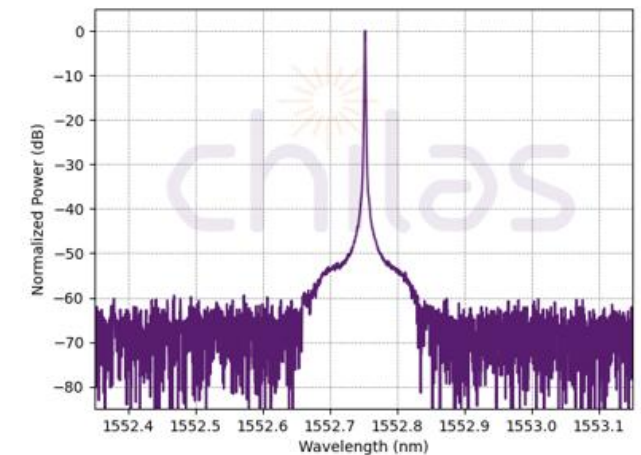
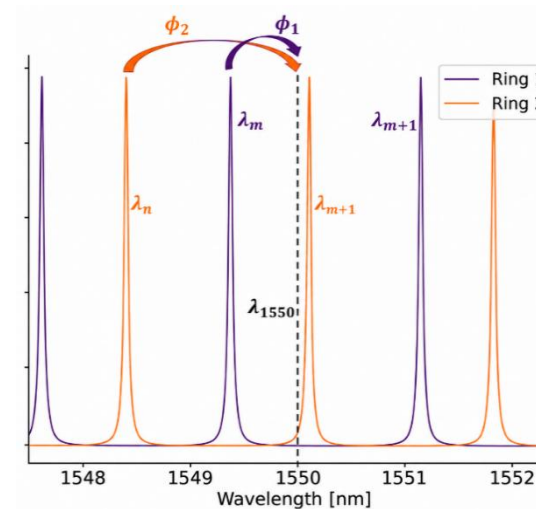


Thanks to low loss Si_3N_4 waveguide circuit

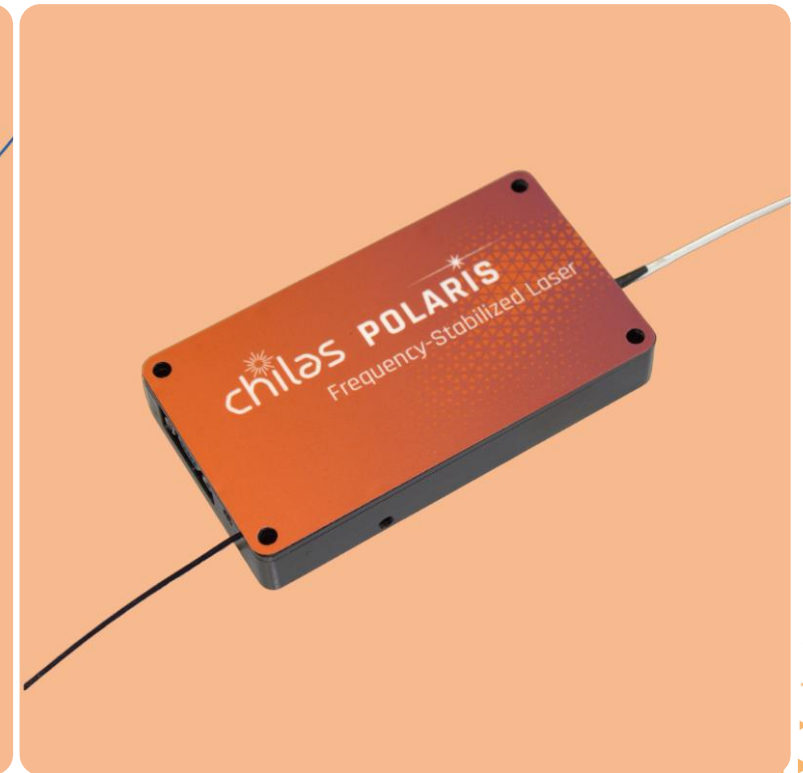
Broad wavelength tuning



A widely tunable filter is formed by two micro-ring resonators (MRRs) in Vernier configuration.



Laser product line



Chilas Tunable Narrow Linewidth Lasers

ATLAS: Wavelength Tunable Lasers

Prototypes	Center WL	WL range	Power	Intrinsic Linewidth	SMSR
ATLAS 685	685 nm	10 nm	>1 mW	≤100 kHz	>40 dB
ATLAS 850	850 nm	40 nm	>3 mW	≤100 kHz	>40 dB
New! ATLAS 980	980 nm	80 nm	>10 mW	≤5 kHz	>40 dB
New! ATLAS 1064	1064 nm	90 nm	>10 mW	≤5 kHz	>40 dB

Products	Wavelength	Power	Intrinsic Linewidth	SMSR
POLARIS C-band	Selectable ITU	>20 mW	≤1 kHz	>40 dB
New! POLARIS O-band	1310 nm	>20 mW	≤3 kHz	>50 dB

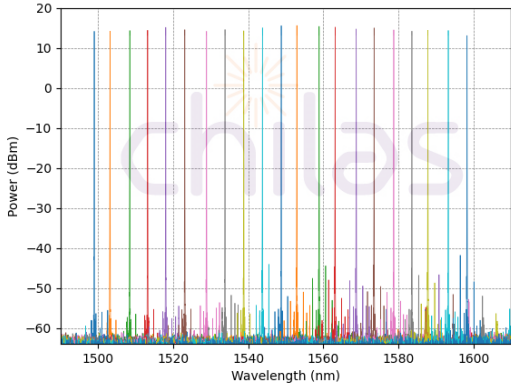
Products	Center WL	WL range	Power	Intrinsic Linewidth	SMSR
New! ATLAS 1310	1310 nm	100 nm	>10 mW	≤5 kHz	>40 dB
ATLAS 1550	1550 nm	100 nm	>10 mW	≤1 kHz	>50 dB
ATLAS 1600	1600 nm	100 nm	>3 mW	≤5 kHz	>50 dB
ATLAS 1700	1700 nm	100 nm	>1 mW	≤10 kHz	>40 dB

← POLARIS: Single-Frequency Lasers

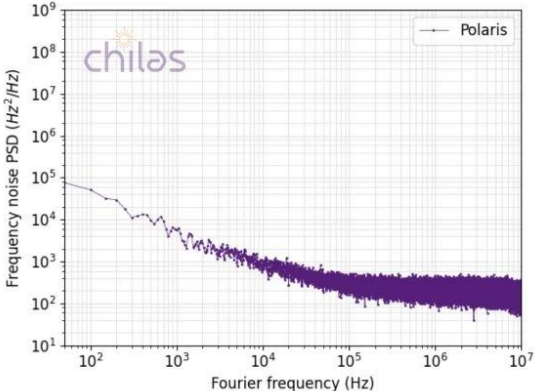
COMET: Swept-Source Lasers

Products	Center WL	WL range	Power	Intrinsic Linewidth	SMSR
COMET 1550	1550 nm	up to 50 nm	>20 mW	≤1 kHz	>50 dB

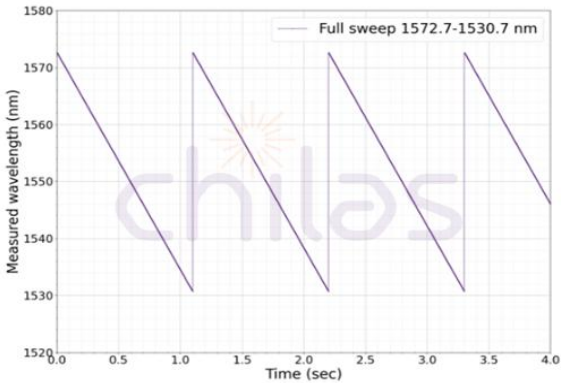
Broad tuning range ATLAS Wavelength Tunable



Low Phase Noise POLARIS Single Frequency



Wavelength sweep COMET Swept Source



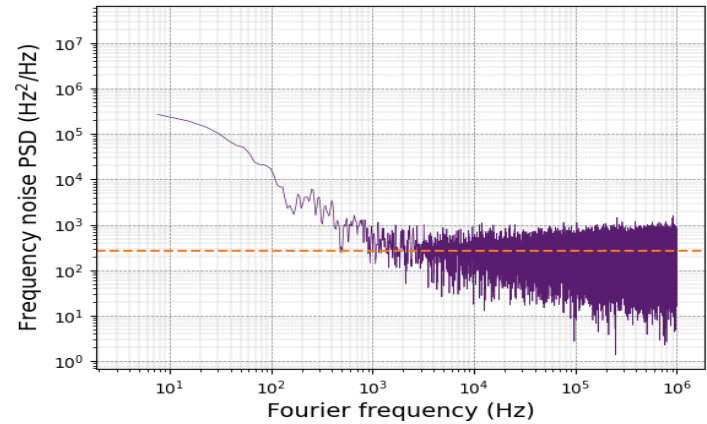
Chilas ATLAS 1310 : Wavelength Tunable Laser



Parameter	Specified values
Wavelength range	100 nm
Wavelength resolution	10 pm
Wavelength accuracy	± 10 pm
Wavelength switching time	20 ms
Fiber output power at central wavelength	≥ 13 dBm / 20 mW
Intrinsic linewidth	≤ 10 kHz
Side-mode suppression ratio	≥ 40 dB
Modulation bandwidth of diode current	500 kHz

Chilas POLARIS O-band: Single-Frequency Laser

Parameter	Min.	Typ.	Max.	Unit	Testing conditions
Center Wavelength		1310		nm	
Output Power		20	40	mW	
Intrinsic linewidth			3	kHz	
Relative Intensity Noise		-145		dBc/Hz	
Side-Mode Suppression Ratio		55		dB	
Polarization Extinction Ratio		23		dB	Slow axis aligned
Optical Isolation		50		dB	



Frequency Noise POLARIS O-band

C-band counterpart



POLARIS C-band

 ≤ 1 kHz linewidth

 Excellent stability

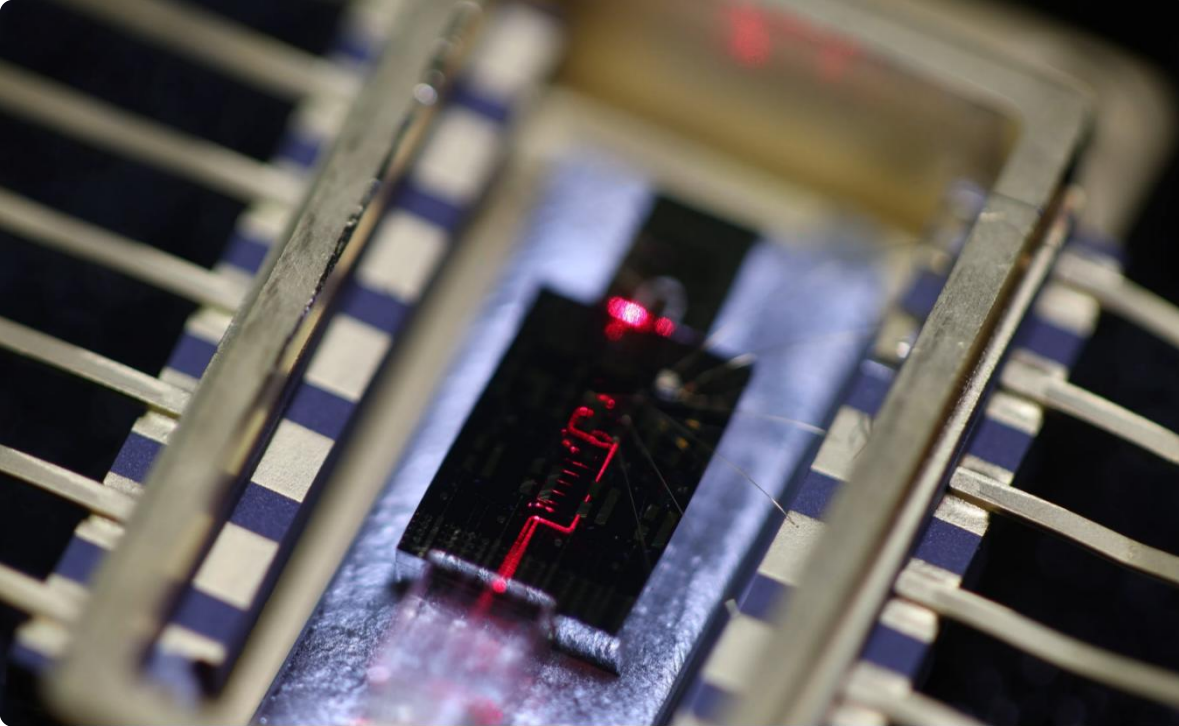
 Fiber connected

Almost here: ATLAS 1064 Wavelength Tunable Laser



Parameter	Specified values
Wavelength range	1030-1090 nm
Wavelength resolution	10 pm
Wavelength accuracy	10 pm
PER	> 20 dB
Output power at center wavelength	> 10 mW
Intrinsic linewidth	< 10 kHz
Side-mode suppression ratio	≥ 35 dB
Modulation bandwidth of diode current:	> 500 kHz

A laser for every application



- ✓ Spectroscopy
- ✓ Sensing (biomedical, infrastructure, vibration, FBGS)
- ✓ Quantum Key Distribution, Quantum Computing
- ✓ Optical Coherence Tomography (OCT)
- ✓ Source for Optical Spectrum Analyzers
- ✓ Optical Device testing
- ✓ Terahertz generation
- ✓ LiDAR & more...

Ready to tune in together?

Reach out at: info@chilasbv.com or via the **Contact** form on our website



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Thank you for your attention!

