Observatory ambient parameters. Observation and Scientific parameters		
Name	**Description**	**UCD (v1.4)**
--- DIMM seeing		
DIMM-Seeing	The total seeing calculated with DIMM telescope [arcsec].	instr.obsty.seeing
Relative Flux RMS	Relative Flux variations measured along the line of sight normalized by the average flux.	stat.rms ; phys.flux
Relative Flux RMS base time	Time range of measurements (start of first interval to end of last interval) used to calculate the relative flux variations measured along the line of sight [s].	time.interval
--- Historical Ambient Data		
DIMM-Airmass	Airmass at which the ASM-DIMM telescope measures the site seeing.	obs.airMass
DIMM-Seeing	Reference observatory site seeing measured by the ASM-DIMM telescope, Full Width Half Maximum at 500nm [arcsec].	instr.obsty.seeing
Relative flux RMS	Relative Flux variations measured along the line of sight normalized by the average flux.	stat.rms;phys.flux
TAU	Coherence time [s].	time.interval
THETA0	Isoplanatic angle [arcsec].	
--- LHATPRO		
Platform	indicates the position where a radiometer is located	meta.code
LHATPRO ID	An integer used to identify a specific radiometer,	meta.id

Proposed new UCD (Andrea) July 22	proposal with new UCD words sept 15 2022	
	Validation steps : ML, SB, ?, ?	
	instr.obsty.seeing	
stat.rms;phot.flux;*arith.ratio*	stat.rms;phot.flux;*arith.ratio*	
	time.interval	
	obs.airMass	
	instr.obsty.seeing	
stat.rms;phot.flux;*arith.ratio*	stat.rms;phot.flux;*arith.ratio*	
time.interval	time.interval;obs.coherence	
instr.offset.isoplanatic ?? obs.atmos.isoplanatic	obs.atmos.isoplanatic	
	meta.code	
	meta.id	

Telescope azimuth and elevation	Telescope azimuth and elevation [deg]	pos.az;instr.tel
Target RA/DEC	Right ascension and Declination of the target [deg].	pos.eq;src
IR temperature at Zenith	Measured infrared (10.5 μm) sky brightness temperature at Zenith [Celsius]	phys.temperature
IR temperature	Measured infrared (10.5 μm) sky .	phys.temperature
Liquid water path	Measured liquid water path at Zenith [g/m**2].	
Precipitable Water Vapour	Measured Precipitable Water Vapor (using the 183 GHz emission line) at zenith [mm].	
Absolute Humidity	Absolute Humidity Value [g/m**3] measured by a humidity profiler (183-191 GHz) at different heights	
Relative Humidity	Relative Humidity Value [%] at at different heights	
Temperature Profile	Brightness Temperature [K] measured by a temperature profiler (51-58 GHz) at different heights	
--- MASS		
Free Atmosphere Seeing	Free atmosphere seeing at 500nm/zenith from MASS stand-alone integrated profile [arcsec]	instr.obsty.seeing
Free Atmosphere Seeing RMS	Relative RMS of free atmosphere seeing at 500nm/zenith from MASS stand-alone integrated profile.	stat.rms;instr.obsty.seeing
MASS Tau0	Coherence time (weights method) from MASS stand-alone [s].	time.interval
MASS Tau0 RMS	Relative RMS on the coherence time (weights method) from MASS stand-alone.	stat.rms;time.interval
MASS Theta0	Isoplanatic angle from MASS-DIMM integrated profile [J1:J6] [arcsec].	
MASS Theta0 RMS	Relative RMS on the isoplanatic angle from MASS-DIMM integrated profile [J1:J6].	

	pos.az;instr.tel	
	pos.eq;src	
phys.temperature.brightness;em.IR	instr.skyTemp;em.IR	
phys.temperature.brightness;em.IR	instr.skyTemp;em.IR	
phys.atmos.water.path	phys.columnDensity;obs.atmos.water	
phys.atmos.water.precipit ou phys.water.precipit;obs.param ou	phys.size;obs.atmos.water	
phys.humidity.abs;obs.param ou phys.water.precipit;obs.calib	obs.atmos.humidity	
phys.humidity.rel;obs.param	obs.atmos.humidity;arith.ratio	
phys.temperature.brightness;em.mm	instr.skyTemp;em.mm	
	instr.obsty.seeing	
	stat.rms;instr.obsty.seeing	
	time.interval;obs.coherence	
	stat.rms;time.interval;obs.coherence	
phys.turbulence.isoplanatic;obs.atmos	obs.atmos.isoplanatic	
stat.rms;phys.turbulence.isoplanatic	stat.rms;obs.atmos.isoplanatic	

MASS Turb Altitude	Characteristic altitude of the free atmosphere turbulence from MASS-DIMM integrated profile [J1:J6] [m].	
MASS Turb Altitude RMS	Relative RMS on the characteristic altitude of the turbulence in MASS-DIMM integrated profile [J1:J6].	
MASS-DIMM Cn2 fraction at ground	Fraction of turbulence in the ground layer (GL defined as J0, or DIMM minus MASS): FracGL = J0/sum(J0:J6).	
MASS-DIMM Seeing	Whole atmosphere seeing at 500nm/zenith from MASS-DIMM combined profile [J0:J6] [arcsec].	instr.obsty.seeing
MASS-DIMM Tau0	Coherence time of the turbulence in the whole atmosphere from MASS-DIMM combined profile [J0:J6] [s].	time.interval
MASS-DIMM Theta0	Isoplanatic angle of the turbulence in the whole atmosphere [arcsec].	
MASS-DIMM Turb Altitude	Characteristic altitude of the turbulence in the whole atmosphere from MASS-DIMM combined profile [m].	
MASS-DIMM Turb Velocity	Characteristic velocity of the turbulence in the whole atmosphere from MASS-DIMM combined profile [m/s].	
--- METEO		
Air Pressure	Temporal (1 minute) mean of observatory site ambient barometric air pressure measured at ground during measurement period [hPa].	phys.pressure
Ambient Temperature	Temporal (1 minute) mean of site ambient temperature measured at 30m, 2m, ground and 20m below VLT platform [deg Celsius].	phys.temperature
Dew Temperature	Temporal (1 minute) mean of observatory site ambient dew temperature measured at sensor position 30m, 2m, and 20m below VLT platform during measurement period [deg Celsius].	
Large (5 micron) dust Particles	Temporal (20 minutes) mean of observatory site ambient large (5 micron size) dust particle count per cubic meter measured at sensor position 20 m and 10 during measurement period [m**(-3)].	phys.density;phys.dust

phys.turbulence.altitude	pos.earth.altitude;obs.atmos.turbulence	
stat.rms;phys.turbulence.altitude	stat.rms;pos.earth.altitude;obs.atmos.turbulence	
phys.turbulence;arith.ratio	obs.atmos.turbulence.cn2;arith.ratio	
	instr.obsty.seeing	
	time.interval;obs.coherence	
phys.turbulence.isoplanatic	obs.atmos.isoplanatic	
phys.turbulence.altitude	pos.earth.altitude;obs.atmos.turbulence	
phys.turbulence.velocity	phys.veloc;obs.atmos.turbulence	
	phys.pressure;obs.atmos	
	phys.temperature;obs.atmos	
phys.temperature.dew	phys.temperature.dew	
	phys.density;phys.dust	

phys.turbulence.altitude   pos.earth.altitude;obs.atmos.turbulence

Normalised Air Pressure	1 minute average pressure normalised to sea level [hPa].	arith.ratio;phys.pressure
Rain intensity	1 minute average rain percentage measured at 20m below VLT platform [%].	
Relative Humidity	Temporal (1 minute) mean of observatory site ambient relative humidity measured at sensor position 30m, 2m and 20m below VLT platform during measurement period [%].	
Small (0.5 micron) dust Particles	Temporal (20 minutes) mean of observatory site small (0.5 micron size) dust particule count per cube meter measured at sensor position 20m and 10m during measurement period [m**(-3)].	phys.density;phys.dust
Wind Direction (0/360)	1 minute average wind direction at 30m and 10m above ground counted clockwise from North (standard) [deg].	
Wind Direction (180/-180)	1 minute average wind direction at 30m and 10m above ground counted clockwise from North (with 180 degree negative offset for display purposes) [deg].	
Wind Speed	1 minute average wind speed at sensor position 30m and 10m [m/s].	
Wind Speed component U	Temporal (1 minute) mean of observatory site ambient wind speed U vector component, where U is horizontal and points to 330 degree measured at sensor position 20m during measurement period [m/s].	
Wind Speed component V	Temporal (1 minute) mean of observatory site ambient wind speed V vector component, where V is horizontal and points to 240 degree measured at sensor position 20m during measurement period [m/s].	
Wind Speed component W	Temporal (1 minute) mean of observatory site ambient wind speed W vector component, where W is vertically pointing upwards, measured at sensor position 20m during measurement period [m/s].	
--- SLODAR		
Cn2 above UTs	Integrated Cn2 above the equivalent UT (VLT Unit Telescope) height [10**(-15)m**(1/3)]	wavefront slope correlations https://arxiv.org/pdf/1101.3924.pdf
Cn2 fractions	Cn2 fraction below 300m and 500m respectively.	

	phys.pressure;obs.atmos	
phys.atmos.rain	obs.atmos.rain	
phys.humidity.rel	obs.atmos.humidity;arith.ratio	
	phys.density;phys.dust;stat.mean	
phys.wind.direction	pos.azimuth;obs.atmos.wind	
phys.wind.direction	pos.posAngle;obs.atmos.wind	
phys.wind.speed	phys.veloc;obs.atmos.wind	
phys.wind.speed.U	phys.veloc;pos.cartesian.x;obs.atmos.wind	
phys.wind.speed.V	phys.veloc;pos.cartesian.y;obs.atmos.wind	
phys.wind.speed.W	phys.veloc;pos.cartesian.z;obs.atmos.wind	
phys.turbulence	obs.atmos.turbulence.cn2;arith.sum	
phys.turbulence;arith.ratio	obs.atmos.turbulence.cn2;arith.ratio ??	

Surface layer profile	High resolution surface layer fit strength [10**(-15)m**(1/3)].	instr.param

	stat.fit;obs.atmos.turbulence.cn2	
		instr.param ?