- Replace instances of the ?: conditional operator in wave assignments with MatrixOp calls. For example, replace this:

```
wave1 = wave1[p]==0 ? NaN : wave1[p]
```

with:

```
MatrixOp/O wave1 = setNaNs(wave1,equal(wave1,0))
```

MatrixOp Functions by Category

This section lists the MatrixOp functions by category to help you select the appropriate function.

Numbers and Arithmetic

e	inf	Pi	nan	maxAB	minAB
maxMagAB	minMagAB	mod			

Trigonometric

acos	asin	atan	atan2	cos	hypot
phase	sin	sqrt	tan		

Exponential

acosh	asinh	atanh	cosh	exp	expIntegralE1
expm	ln	log	powC	powR	
sinh	tanh				

Complex

cmplx	conj	imag	magSqr	p2Rect	phase
powC	r2Polar	real			

Rounding and Truncation

abs	ceil	clip	floor	mag	round

Conversion

cmplx					
fp32	fp64				
int8	int16	int32	uint8	uint16	uint32

Data Properties

numCols	numPoints	numRows	numType		
waveChunks	waveLayers	wavePoints			
waveX	waveY	waveZ	waveT		

Data Characterization

averageCols	crossCovar	chol	det	frobenius	
integrate	indexCols	indexRows			

intMatrix	maxCols	maxRows	maxVal		
mean	minCols	minRows	minVal		
normP	oneNorm				
productCol	productCols	productDiagonal	productRows		
sgn					
sum	sumBeams	sumCols	sumND	sumRows	sumSqr
trace	varBeams	varCols			

Data Creation and Extraction

beam	catCols	catRows	col	colRepeat	rowRepeat
chunk	const	decimateMinMax	getDiag	identity	insertMat
inv	layer	layerStack	rec		
subRange	subWaveC	subWaveR			
tridiag	waveIndexSet	waveMap	zeroMat		

Data Transformation

addCols	addRows	bitReverseCol	diagonal	diagRC	
normalize	normalizeCols	normalizeRows			
redimension	replace	replaceNaNs			
reverseCol	reverseCols	reverseRow	reverseRows		
rotateChunks	rotateCols	rotateLayers	rotateRows		
scale	scaleCols	spliceCols			
setCol	setColsRange	setNaNs	setOffDiag	setRow	
shiftVector	subtractMean	transposeVol			
zapINFs	zapNaNs				

Time Domain

asyncCorrelation	convolve	correlate	limitProduct	syncCorrelation	

Frequency Domain

chirpZ	chirpZf	fft	ifft		
FST	FCT	FSST	FSCT	FSST2	FSCT2

Matrix

backwardSub	chol	covariance	det	diagonal	diagRC
forwardSub	frobenius	getDiag	identity	inv	kronProd
outerProduct	setOffDiag	tensorProduct	trace		