**Variability and oscillations in response to chirp-like current- and conductance-based synaptic-like inputs with arbitrarily cycle order distribution**

**Z- and PSD- responses**

Resonance\_LinearRandomCyclesInput.m

Function within this code

Var\_Venv\_ArbitraryCycles\_PZZ\_XX\_YY.eps

NormVar\_Venv\_ArbitraryCycles\_PZZ\_XX\_YY.eps

PSDavg\_Vtrace\_ArbitraryCycles\_PZZ\_XX\_YY.eps

ZZ=01: One cycle of each frequency 1:1:100.

**Extension to PWL models:** does not produced any interesting results beyond the expected amplifications.

**Extension to Poisson inputs**

Response\_LinearPoissonInputs.m

Function within this code

PSD\_Vtrace\_Poisson\_PZZ\_XX\_YY.eps

ZZ=01: Poisson Rate = 100

ZZ=02: Poisson Rate = 500

ZZ=03: Poisson Rate = 1000

**Parameter Sets**:

Numbering coupled to Notesboook\_VariabilityPiecewiseConstantWhiteNoise.docx

**Parameter Set XX=01 (node)**

C = 1;

gL = 0.25;

g1 = 0.25;

tau1 = 100;

fnat = 0

fres = 9

**Parameter Set XX=02 (focus)**

C = 1;

gL = 0.05;

g1 = 0.3;

tau1 = 100;

fnat = 8.1

fres = 8

**Parameter Set XX=03 (passive)**

C = 1;

gL = 0.25;

g1 = 0;

% tau1 = 100;

fnat = 0

fres = 0

**Parameter Set XX=05 (node)**

C = 1;

gL = 0.1;

g1 = 0.2;

tau1 = 100;

fnat = 0

fres = 7

**Parameter Set XX=06 (focus)**

C = 1;

gL = 0.1;

g1 = 0.8;

tau1 = 100;

fnat = 12.3

fres = 14

**Parameter Set XX=07 (passive)**

C = 1;

gL = 0.1;

g1 = 0;

tau1 = 100;

fnat = 0

fres = 0