In SPEN, at each time instant during the acquisition we sample a different region in space *ys(t)*. The phase value of this sampled point is the instantaneous phase of the acquired signal at that moment.



If the trajectory scans the SPEN dimension linearly then,





And the phase profile of the sample during the acquisition can be re-written as:



The acquisition phase forms a parabola in time; the vertex is at the center time point. The highest variation of the phase is at its start and end points. Hence the largest phase jump is:



If this value exceeds PI than a moving window should be applied to the signal in order to prevent the aliased signal from contaminating the image.