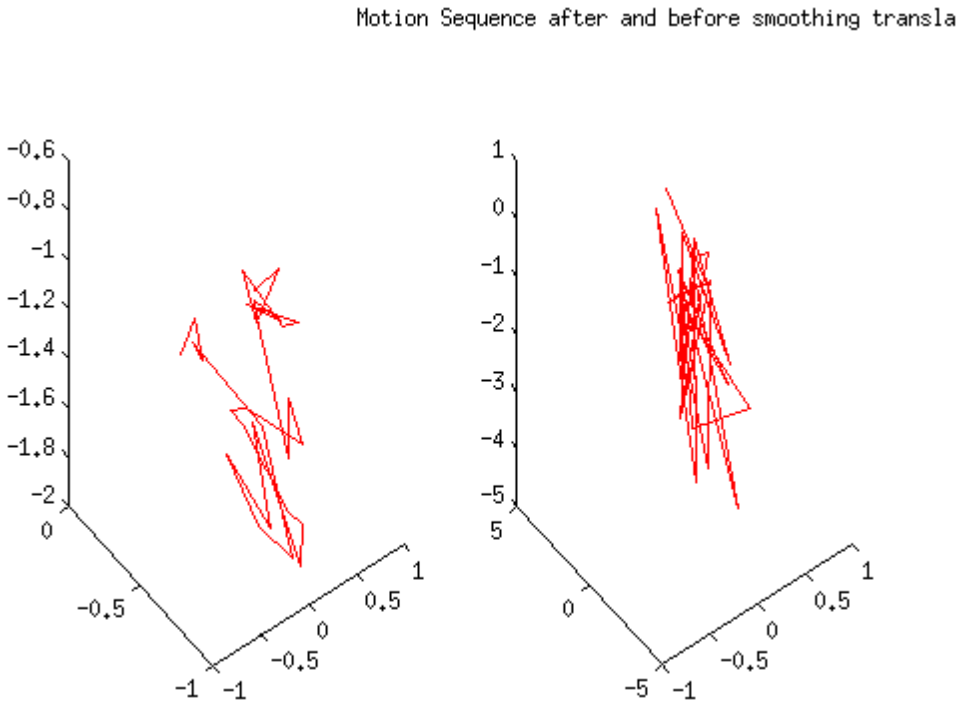
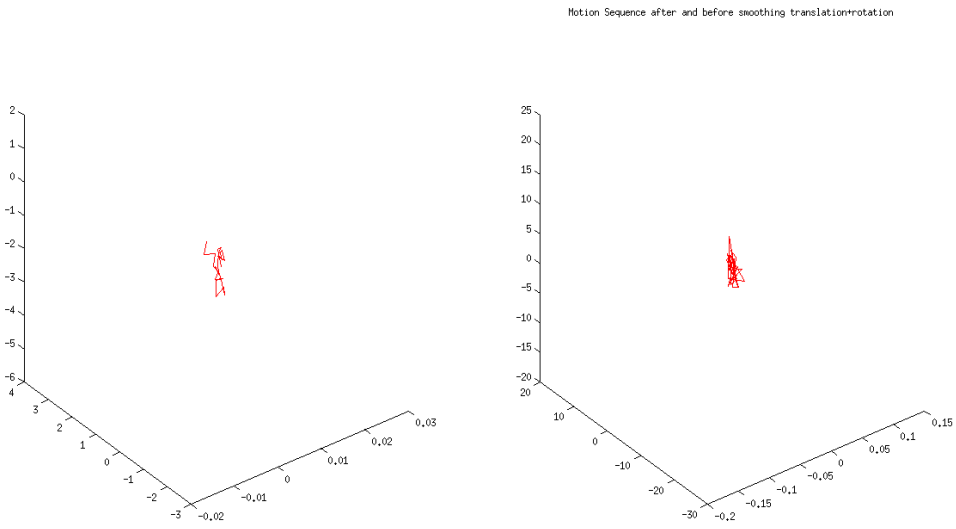
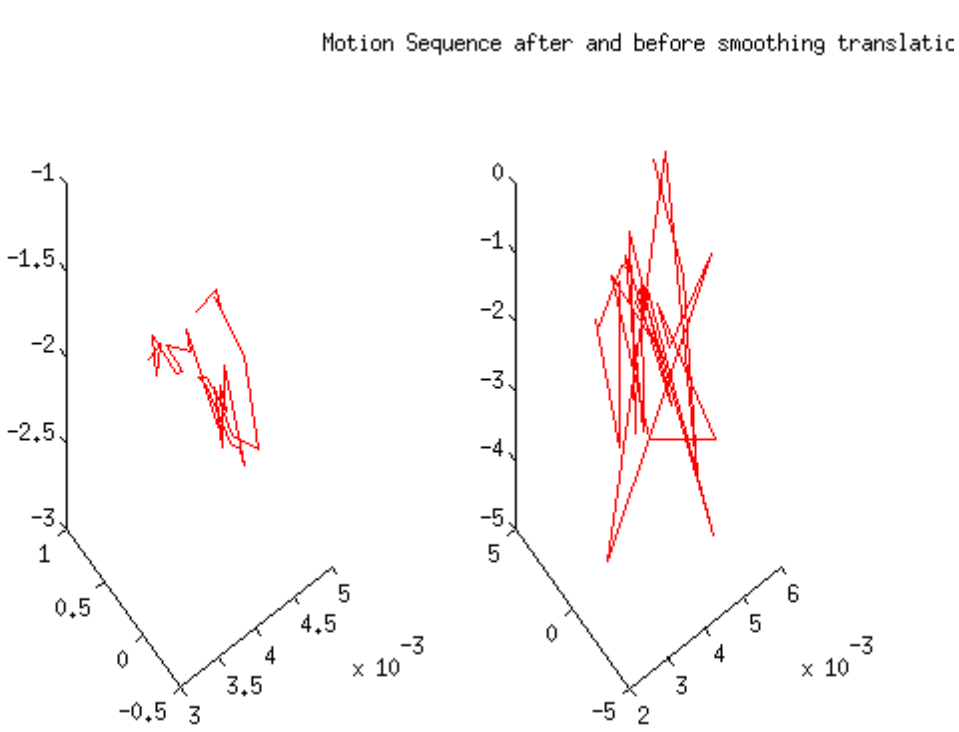
Part A) Motion Sequences Plotted:



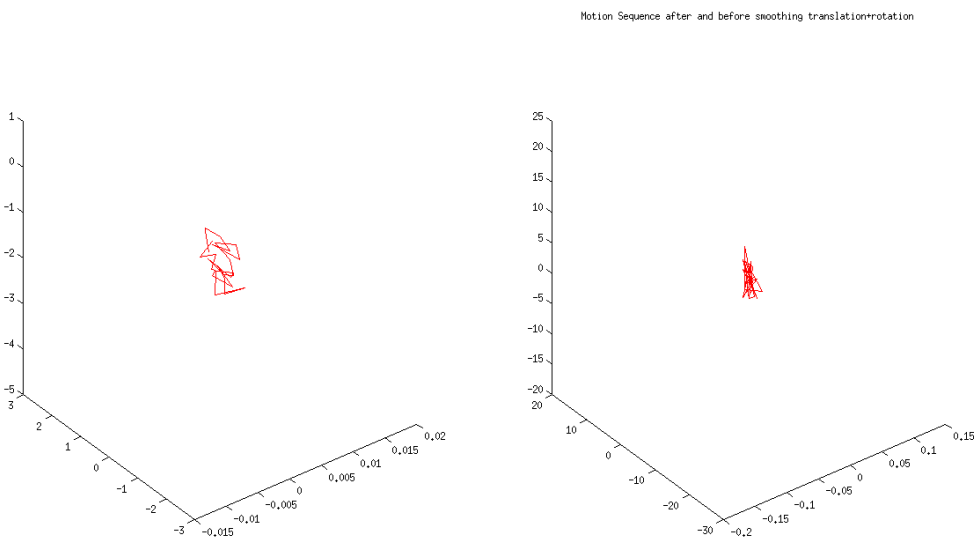
Translation Motion Sequence
Right : Smooth Filtered Motion Sequence
Left: Without Filtering Motion Sequence



Translation Rotation Motion Sequence
Right : Smooth Filtered Motion Sequence
Left: Without Filtering Motion Sequence



Translation Ransac Motion Sequence
Right : Smooth Filtered Motion Sequence
Left: Without Filtering Motion Sequence



Translation Rotation Ransac Motion Sequence
Right : Smooth Filtered Motion Sequence
Left: Without Filtering Motion Sequence

Videos on which video Stabilization will not work:
Our methods of video stabilization will only work when we know the kind of noisy motion that is taking place and then we can employ the appropriate model correct the motion sequence.
When the model itself is pretty random for example random movements involving some not known noisy model with gaussian noise affecting the camera positions.

Also in high speed videos where the objects are moving really fast within the scene(implies frame rates are relatively slow) video stabilization would not work as it will estimate the motion of the object within the image.

If there are very few feature points within the image it will be difficult for video stablization to work.