Space Curves

MTH 434

Dr. Christine Escher

3A

b. Questions

There were two questions I had after reading this section. Is it possible to abstract the unit binormal vector to n dimensions? Even though you wont have the cross product as long as you can find your normal and tangent vectors you could just Gramm-Schmidt your way to n vectors. Would this lose the geometric meaning? My second question isn't really a question. Rather I just got lost a bit during the derivation in the final page of the chapter involving the Taylor expansions and could use some help clarifying how that was accomplished.

John Waczak

Date: January 19, 2018

c. Reflections

I found this section interesting- particularly the concept of torsion. However in trying to get used to all of these new unit vector I am still confused as to why we don't just refer to \mathbf{tn} as $\hat{\mathbf{v}}, \hat{\mathbf{a}}^{\perp}$. It seems to me like thinking of these vectors as just the unit vectors of velocity and acceleration would be much easier to remember.

d. Time

It took me approximately 20 an hour to read through the section two times and take note of everything I thought was important. I would like to re-read the final section which involved the Taylor expansion a few times.