# Basketball movement tracking

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CS-GY-6643 Computer Vision
May 2016

## 1 Introduction

SHOOTING is the most important scoring technique in a basketball match. Athletes and amateur players are always eagle to improve their shooting skills. But it is hard to analyze whether a shoot is good or not by just using bare eyes. So we would like to develop a system which can create 3D basketball trace from the video to help people practice better since it is a very practical and interesting problem. We are looking forward to do it.

## 2 Approach

The idea is to reconstruct the ball movement curve when shooting the basketball. We want to do the reconstruction by calculating the world coordinates of the basketball in each frame of the video. In order to get the correspondence between the two videos, we will set up a timer that can be seen in both the video cameras.

When the movement curve is successfully reconstructed, we will try to track the movement of basketball shot in different ways, i.e. with or without spin, and to compare the differences among the curves.

## 3 Conclusion

The conclusion goes here.

## Appendix A
## Proof of the First Zonklar Equation

Appendix one text goes here.

## Appendix B

Appendix two text goes here.

## Acknowledgments

The authors would like to thank...

## References

[1] H. Kopka and P. W. Daly, *A Guide to LaTeX*, 3rd ed. Harlow, England: Addison-Wesley, 1999.

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*Manuscript received April 19, 2005; revised August 26, 2015.*

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