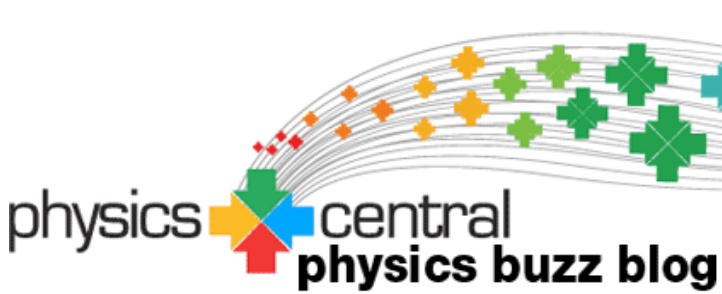


Share Report Abuse Next Blog»

Create Blog Sign In



physics fun and science news.
socks optional.

Monday, May 14, 2012

Can NBA Timeouts Decide Games? Scientists Say No

The NBA playoffs are in full swing, and eight teams have survived the first round of basketball. My home team, the Denver Nuggets, were booted from the playoffs last week after a game seven showdown against the LA Lakers (boo!), prompting faithful Nuggets fans to question what our team could have done differently.

Did we lose too many turnovers? Was there something our coach could have done? Is Kobe simply an unstoppable force?

Although no one can pin down a single reason for NBA game outcomes, physicists have ruled out one explanation: the "momentum changing" timeout.



Image courtesy CT Snow via Flickr.

Serguei Saavedra, a statistical physicist at Northwestern University, and his colleagues collected official scoring and timeout data from the NBA website. Because the NBA provided play-by-play recaps for all of the games, the researchers could compare scoring differentials before and after timeouts were called.

With data from 3,000 NBA games dating back to 2009, Saavedra and his team found no evidence that supposedly critical timeouts could lift trailing teams to victory. In fact, the

Visit PhysicsCentral!

[PhysicsCentral Website](#)

Share This Post!

Physics Buzz Feed



Blog Archive

- ▼ 2012 (92)
 - ▼ May (11)
 - [Can NBA Timeouts Decide Games? Scientists Say No](#)
 - [Simulated Skiers Reveal Mountain Traffic Jams](#)
 - [Liquid Levitation](#)
 - [I'm a Good Person so I Trust Facts](#)
 - [What is Science? Philosophy Has Answers \(sort of\)](#)
 - [Statistical Analysis Hints at Voter Fraud in Russi...](#)
 - [Scientists on trial in Italy . . . again.](#)
 - [May The 4th Be With You](#)
 - [Physics of the Hit: Football Concussions](#)
 - [Physics: The Greatest Show on Earth](#)
 - [Is Philosophy Relevant to Physics?](#)
 - April (20)
 - March (22)

statistical analysis revealed that teams with big leads racked up even more points after time outs were called.

The team analyzed three seasons for 30 different NBA teams, giving them a sample of 90 individual seasons. They found that 78 of these 90 seasons displayed no statistically significant correlation between timeouts and changes in scoring differential. There's a very good chance that randomly-timed timeouts could have led to the same scores.

To be fair, timeouts may be more important at different times in the game. Towards the end of the game, for instance, coaches will call a number of timeouts to take advantage of every remaining second on the clock. Did these fourth quarter timeouts help decide the winner?

No, say the researchers. Even after accounting for different quarters, there was still no significant correlation between timeouts and score changes. Furthermore, teams with higher payrolls weren't able to capitalize on timeouts any better than teams with lower payrolls.

One factor the team didn't analyze, however, was the relationship between coaches' salary and effective use of timeouts. I wonder if the millions of dollars teams spend on coaches translates into mid-game comebacks. Maybe the old whiteboard dotted with X's and O's -- a coach's go-to timeout tool -- isn't so effective after all.

You can read the [research](#) on the arXiv preprint server.

If you want to keep up with Hyperspace, AKA Brian, you can follow him on [Twitter](#).

Posted by Hyperspace at [4:30 PM](#)

Labels: [basketball](#), [playoffs](#), [sports](#), [statistics](#)

0 comments:

Post a Comment

Enter your comment...

Comment as:

Links to this post

[Create a Link](#)

[Home](#)

[Older Post](#)

Subscribe to: [Post Comments \(Atom\)](#)

► [February](#) (19)

► [January](#) (20)

► [2011](#) (244)

► [2010](#) (260)

► [2009](#) (209)

► [2008](#) (218)

► [2007](#) (132)

► [2006](#) (63)

Search This Blog

Physics News

[Mathematical physics reveal](#)

Phys.Org

"If you begin looking at them in any degree of detail, you will see all of those beautiful arrangements of impinging angles and where the big veins meet the little veins and how well they are arranged," says Marcelo Magnasco, a mathematical physicist ...

[Related Articles »](#)

[EU physicists use 20 new satellites](#)

Phys.Org

This reinforces the navigation problems," says professor Jøran Moen of the Department of Physics at University of Oslo (UiO), Norway. Universities around the world are now working together to understand what is happening at a micro-level in the plasma ...

[Physics, Ivy Bridge, and the slow](#)

ExtremeTech

By Joel Hruska on May 14, 2012 at 1:53 pm In the weeks since Ivy Bridge launched, it's come out that Intel used thermal paste between the CPU's heat spreader and the actual die, rather than the fluxless solder it debuted with Prescott and adopted for ...

[A physicist and an inventor](#)

Phys.Org

But when I started taking computer science classes, physics classes and engineering classes, I realized that what I found most exciting was when new physics enables new applications," says Soljagic, who in 2008 won a MacArthur Fellowship, ...

powered by