



Department Head Notes

Congratulations to Larry Leverenz, Alice Wilcoxson, Denny Miller, and everybody connected to the athletic training education program for their steady efforts to have the program re-accredited. The comprehensive review process of the Commission on Accreditation of Athletic Training Education (CAATE) was long and drawn out. But in the end, not only were we positively reviewed, but the accreditation was extended to the 2016-2017 academic year. That's about the maximum extension allowed.

April 1, 2009 is the official date for the Mackey Arena renovation parking lot closings and reconfiguring. The lot behind Lambert, G Lot, will be fenced off. There is no access either to the parking spaces in the turn-in area off Northwestern on the east side of Mackey. The F Lot (north of Mackey) will be reduced by about one third. Walking access from F Lot to Lambert will be by way of a pathway on the west side of F Lot around Mackey to the west. There will be no access to the Fieldhouse from the north doors. And the tunnel will be closed in June. It is expected that this phase of the three year renovation will be completed by October 2009.

In the most recent issue of the Purdue publication *Perspective* (Spring 2009), you will find a nice story featuring research collaborations between the liberal arts and the sciences. One of the three featured research projects is the work Howie Zelaznik and George Lee (electrical and computer engineering) on humanoid robots. Their research aims to figure out how to make a humanoid robot behave like a human, and in particular how to increase the variability of movement decisions the robot "makes." Their research is NSF funded. Lee and Zelaznik are also working with researchers from the Advanced Institute of Science and Technology in Japan. The Japanese researchers are leaders in humanoid studies. Nice story.

It's supposed to rain this weekend . . .

April Rain Song

Let the rain kiss you.
Let the rain beat upon your head with silver liquid drops.
Let the rain sing you a lullaby.
The rain makes still pools on the sidewalk.
The rain makes running pools in the gutter.
The rain plays a little sleep-song on our roof at night—
And I love the rain.

--Langston Hughes (1902-1967)





Vitality

Mark Your Calendars!



APRIL

April 14 - Deadline for pending incomplete grades to become failing grades.

April 24 - Last day for students to pass the final examination. (Presentation or thesis defense)

May 1

Last day for MS and PhD students to deposit the electronic thesis and turn in required forms at their mandatory, scheduled final deposit appointment.



April Birthdays!



**Doug Wiedman 6th
Meghan McDonough 6th
Jeffrey Haddad 7th
Philip Troped 8th
Darlene Sedlock 15th**



The following paper was accepted for publication:



Jeff Haddad

Relative phase coordination analysis in the assessment of dynamic gait symmetry

To be published in the Journal of Applied Biomechanics

Authors:

Jeffrey Haddad – Purdue University

Richard van Emmerik – University of Massachusetts

Joseph Hamill – University of Massachusetts

Jonathan Wheat - Sheffield Hallam University, UK

Winona Snapp-Childs – Indiana University

ABSTRACT

A variety of kinematic and kinetic measures are typically used to examine gait symmetry. Here we make the argument that gait asymmetries may be most clearly revealed through higher order coordinative measures such as continuous relative phase (CRP). Participants walked on a treadmill with a load attached to their nondominant limb. Gait symmetry was then assessed using spatial (angular), temporal (velocity) and higher-order (CRP) symmetry measures. It was found that higher-order measures were most sensitive at assessing asymmetries due to load manipulation at both the distal and proximal segments. Symmetry measures derived from velocity variables were more sensitive than angular measures at detecting asymmetries, but were less sensitive compared to CRP. Asymmetries were also more readily detected using segmental angles compared to joint angles. These results suggest that gait asymmetries that emerge from changing constraints manifest along both spatial and temporal dimensions.



Vitality

The Houston Rockets were rocking!



For those who don't me yet, my name is Stephanie Saur and I am currently a PhD student for Health Promotion and Disease Prevention under Dr. Titilayo Okoror. I am originally from Germany and I came to Purdue 3 years ago after receiving a masters in exercise physiology from the University of Kansas (Go Jayhawks!). Here at Purdue I am focusing on sexual health and sex education among college students and young adults. I have also been teaching HK 225 Sexuality & Health for three years now.

In my free time (of which there is not much sometimes...) I volunteer for a US student exchange company based out of Ogden, Utah and Cologne, Germany called iE - international Experience. The company organizes half or full year high school student exchanges between the US, Germany, Australia, Canada, and South Africa. My job is it to find host families in and around the bigger Indianapolis area as well as matching those host families with exchange students and making the connection to the local high schools. My background being a German high school teacher myself and also being born in the beautiful country of Germany, I do enjoy this job a lot and I am happy to be a part of this wonderful exchange program that allows students like me to spend a year in a foreign country.



I currently have 13 German exchange students in town that attend Central Catholic, Jefferson, McCutcheon, and Harrison High School. Thanks to our former Purdue basketball star Carl Landry, we recently took a trip to Houston, TX in order to see the Rockets play the Dallas Mavericks. Carl was a big help. He sponsored the hotel for me and my kids as well as getting us VIP tickets to the game. After the game we had the chance to meet and greet some of the Houston players and also our German big time export player Dirk Nowitzki.

You can only imagine how excited and thrilled the kids were about all this. After returning to Lafayette the kids wrote Carl beautiful thank you notes stating that this was by far one of the best experiences of their year abroad.



As for me, I am already in the process of finding new host families for August 2009 that would like to be part of this wonderful opportunity by hosting an international student. In case you are interested or know someone who would love to open their homes and hearts for one of these students, please don't hesitate to contact me and we can make this international experience come true. Families with or without children, single moms or dads, even grandparents will be just about perfect.



For more information contact me at ssaur.ieusa@gmail.com or visit our website at <http://usa.international-experience.net/>
Enjoy the remainder of your week, bis bald, Steph*



Vitality



Leapers Suffer Major Upset by International All-Star Team from Krannert

By Thomas J. Templin, Lambert reporter

In one of the year's major basketball upsets, our Leapers went down to defeat on Wednesday night in Mackey arena, 38-32, at the hands of Practice???, a team of MBA students made up of all-stars, including a 6'7" former NBA player, a former WNBA player, and a bunch of foreign professionals. The Leapers made a valiant effort throughout the game, but again, came up a bit short. Travis Dorsch, who played a stellar game after a 10 hour flight from Germany was stunned by the defeat and was overheard saying, "when are we ever going to win the championship –maybe our grad director needs to change his recruiting priorities? We need some studs!!" We hear your pain, Trav.

The Leapers started out like a team on fire. They couldn't be stopped. Dorsch, Shumm (where did we get this scrappy little 3 point shooter?), DeFreese, and a host of others led the way and it appeared it was going to be another Leaper blow-out. Hitting threes, making slam dunks from the free-throw line, drilling sky-hooks, and playing stifling defense, the Leapers were unstoppable as they moved to an 18-6 lead. The internationals were shell-shocked and could hardly believe their fate...defeat was all over their faces. With 7:26 left in the first half the Leapers were up 11 points with the score 21 to 10. At this point, both teams went into a deep freeze until the three minute mark and that's when the internationals went on a six point "run". It was "white knuckle" time for the Leapers as the internationals cheering section of about 10,000 people went crazy with the familiar "D-Fence" chant. Their fans came alive after being hypnotized by the Leapers amazing play against their studs and one studette. The noise was deafening and that seemed to be the difference as the teams went into half time. The Leapers clearly had to regroup.

The second half opened with Practice??? starting off strong and the Leapers could only muster a single bucket. The lead was cut to 23-21 and then the foreign pros took the lead at 27-23 with 13 minutes left in the game. That's right, the Leapers scored a total of 2 points over a 10 minutes. We were ice cold, but the referees also missed call after call. One wondered if the private meeting during half time with the refs with the Practice??? coach who was seen writing three checks might have influenced the course of events. The Leapers took charge after charge and were hacked to death in the lane, but couldn't get a call from the rookie Co-Rec bribe takers.

But somehow, the Leapers regrouped and made a game out of it. First, Michael Hemphill, who missed the first half due to his commitment to scholarship and class attendance, showed up and intimidated the Practice players by his mere presence (although his sky hook was off, fans!). Also, the Leapers fans, 43 strong (stats provided by Tommy Bailey, star Waterboy and statistician for the Leapers!) went crazy. Cheer after cheer (and a few winks from the female fans to our lads) excited our boys and they came to life. The teams exchanged buckets, but the Leapers steadily came back and tied the score at 31! The drought was over and it was "go time" for the lads. The internationals scored to take the lead 33-31 at the two minute mark and it was here that J.D. DeFreese strutted his stuff.

Con't...



...Con't

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After an incredible Dorsch rebound (I think he hit the rafters) and outlet pass to DeFreese, J.D. demonstrated a series of behind the back and between the legs dribbles up the court, faking out player after player – jock straps were all over the place. Just as he reached the 3 point arc, J.D. “skied” for a Phi Slatka Jamma dunk, but was creamed by the big Ukranian thug and slammed to the floor. Maimed, but still conscious, J.D. could hardly see, but went to the line and was able to hit one of two shots to cut the Practice??? lead to one point.

It was here that the Practice??? coach waived his check book at the refs again and the Practice??? throng of fans rejuvenated their deafening cheers. A slam dunk by the former NBA player started a mini run for the Practice??? team and the Leapers were reduced to a group of desperate school kids waiting for the final paddling from the principal. Yet, it wasn't totally out of reach at 35-32 until one of the refs made the worst call of the game against our boys. Barry was hammered out of bounds, but was called for traveling – yea, right! After this inept call, he noticeably smiled at the Practice??? coach after the play and was overheard by Dr. Barry saying “show me the money”. Yes, the final fix was truly in.

After a series of fouls against our team, the game ended, 38-32, with the Practice??? fans continuing their distasteful behavior by singing “We are the Champions”! Yea right? Remember Enron? Some things never change.

While CEO Templin was shocked by the outcome and was upset he had missed the Idol, he stated, “I am proud of the lads – all of them, even the guys I don't know – who are those guys? How in the hell did we let a couple of guys from Engineering on our club? For a punk Prof, Barry played his heart out. Dorsch was incredible after drinking wine in first class all the way from Germany. I didn't know J.D. could get off the floor, let alone slam and hit threes. Schoenle was almost knocked out on a rebound by Dorsch and actually suffered a concussion (no lie!), but came back in to contribute well. Howell was a defensive gem. And Tobin was Tobin...our 007 with the cop car! Our fans were great and the Waterboy Tommy was All-American. Once again, there's always next year (did you hear that Dr. Smith?). We may have to bring out Zelaznik and Hyner with their deadly set shots. I do know this. We will have a hell-of-a banquet at Spurlocks and even though he called the Leapers a “laughable bunch of losers”, I hope former club President, Dr. Wright, will be in attendance. He is one of the best banquet speakers in the universe – you never know what's up his sleeve.”

Overall, thanks to the Leapers and their loyal fans for another great season!

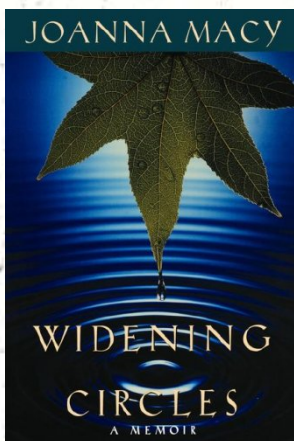


The Elm Dance



The Elm dance is really rather simple. The dancers form a circle (or concentric circles if the dancers are many) holding hands; the sequence of movements is a combination of swaying and stepping movements; first is a stationary swaying for four beats; then moving counter-clockwise for four steps (beats); and then turning into the circle and moving toward one another for four beats, with hands unclasped and arms raised moving like the branches of a tree moving softly in the breeze. Dancers dance to the music of an old Latvian folk song recorded by Ieva Akuratere, lead singer of the Latvian rock group “Perkons” (Thunder). Anastasia Geng created the dance from the song. The dance symbolizes the building of strong intentions, according to Geng.

While the Elm Dance is relatively simple, the occasions for the dancing are rarely so. It is a dance that has come to signify and celebrate healing and responsible commitment to life through the symbolic healing of a sick elm tree. One of the more memorable descriptions of the Elm Dance was published by Joanna Macy (*Widening Circles*, 2000). Macy (b. 1929) has been a social activist for over 45 years; she is a Buddhist scholar, a student of general systems theory, and is committed to building a life-sustaining civilization through a number of organizations, one of which is The Nuclear Guardianship Project. This project is devoted to the responsible care for radioactive material.



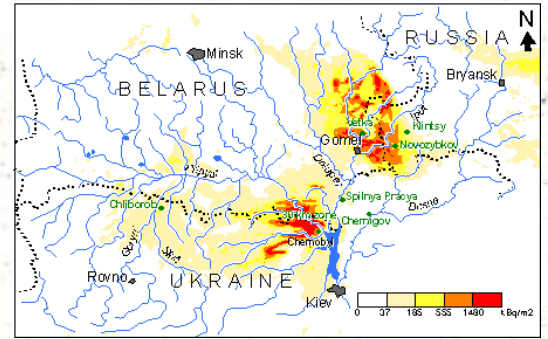
In 1992 Macy was giving workshops in a number of Russian towns in Byelorrussia and Ukraine. The workshops were for people who were living in Chernobyl-contaminated areas, people who were coping with the collective trauma of the radioactivity fallout from the 1986 nuclear reactor disaster. On her way to the city of Novozybkov at the urging of one of her two her Russian hosts, she was informed of the impact of the nuclear accident on the people of this agricultural and industrial city of 50,000 situated about 100 miles east of Chernobyl.

When the reactor blew, the volcano of radioactivity was pushed by the winds east and northeast of the plant. The poisonous cloud was moving directly toward heavily populated Moscow. The decision was made to seed the cloud before it reached Moscow. “An unusually heavy late April rain” was secretly produced. The people of Novozybkov didn’t know that their city was being drenched by radioactive-heavy raindrops of strontium, iodine, cesium, and plutonium. The government did not tell the people of Novozybkov that they were disposable.

Con’t...



The Elm Dance



Nuclear Power Station at Chernobyl, Ukraine (1986)

By the time Macy arrived in the city six years later, the citizens of Novozybkov knew full well what had happened and what their fate was. The contamination was still rampant, the radioactive pollutants moving through the ecosystem by way of wind, water, and livestock fodder. The workshop Macy was scheduled to give included about fifty teachers and parents, mostly women.

Macy's intention was to do what she could to help these participants deal with their on-going tragedies; their chronic sicknesses, their cancers, miscarriages, deformed babies, and their feelings of isolation and powerlessness. The workshop was designed to help the citizens try to take control of their lives. The mayor of Novozybkov was pleased that Macy was there: "It is good of you to come to undertake psychological rehabilitation."

Psychological rehabilitation indeed! thought Macy. That wasn't the function of her visit; she needed to explain to the good mayor of Novozybkov why she was there. "Mr. Mayor, we do not imagine that we can take away the suffering of your people. That would be presumptuous on our part." We can't rehabilitate. But we can look together at how the people respond to their suffering, Macy went on. They can either let it breed fear, conflict, and pit neighbor against neighbor; or they can find a new strength and common cause by way of their suffering.

But it was clear to Macy not long into the workshop that the people of Novozybkov didn't want to talk about Chernobyl, "the event" as they referred to it. So the workshop went on that day with Macy focusing primarily on family life issues the suffering participants *would* talk about: "defiant children, sullen, absent spouses, backbiting neighbors." Macy closed that evening with the Elm Dance. Generally speaking, there were good feelings as the end of the workshop day. The communal dance reinforced communal feelings about their common family life experiences.

Later on that evening, Macy was taking tea with her Russian host's father and the local school superintendent. The school official was showing Macy his Geiger counter. He carries it with him to learn where the newest pocket of radioactive poison is in order to warn the school children not to play in the contaminated area. The largest off-limit area was the forest. The forest, the very soul of the people of Novozybkov, was now a no-person's land. In the words of her host's father, Vladimir Ilyich, "That is where the children may not go, or any of us, for that matter. You see, the trees stay radioactive a long time. Our ancestors were of the forest.



Con't...



The Elm Dance



During the Nazi occupation, our partisans fought from the forest. Even in the hardest times under Stalin, we went into the woodlands every holiday, every weekend, walking, picnicking, mushrooming. Yes, we were always people of the forest.” Then he softly said again, “people of the forest.” Ilyich told Macy that his people would not be going back into the forest either in his lifetime, his son’s lifetime, or even in his grandson’s lifetime. No wonder the citizens didn’t want to talk about the event, Macy thought.

On the next workshop day Macy took the participants back in time to re-connect with their ancestors, back through the generations of Novozybkovians before them; she then brought them slowly forward into their own time. When they got to 1986, the journey through time stopped; they refused to move beyond Chernobyl and into the present. They were stuck in time.

But then quite suddenly, Macy wrote later, the sticking point unstuck itself. The participants emotionally exploded. They began remembering vividly the event-day, the hot winds, the white ash falling, and the poisonous rain. The memories unleashed anger, anger directed at Macy for opening them up to their suffering and pain. One woman cried out at Macy, “Why have you done this to us? What good does it do? I would be willing to feel the sorrow, all the sorrow in the world, if it could save my daughters from cancer. Each time I look at them I wonder if tumors will grow in their little bodies. Can my tears protect them? What good are my tears if they can’t?” Others piled on, forcing Macy to regret what she released, forcing her see the insensitivity of her truth-facing workshop.

Macy did not immediately respond. Eventually the anger subsided, with what needed to be said having been said. Macy recollected later that at the same time she was still trying to figure out what she should say to the Chernobyl victims, she began speaking spontaneously to them. She didn’t talk to the participants directly about Chernobyl, or about the suffering Novozybkovians. Instead she returned to the origin of the Elm Dance, and to her German friends who had introduced her to it. She said:

I have no wisdom with which to meet your grief. But I can share this with you: After the war which almost destroyed their country, the German people determined that they would do anything to spare their children the suffering they had known. They worked hard to provide them a safe, rich life. They created an economic miracle. They gave their children everything, except for one thing. They did not give them their broken hearts. And their children have never forgiven them.

Con’t...



Vitality



Much to Macy's surprise, everybody returned to the next and last morning of the workshop. They once again opened the session with The Elm Dance. After the dancing, the angriest woman of the entire group the day before spoke up first about her traumatic experience of facing up to the truth of the 1986 event. "I hardly slept. It feels like my heart is breaking open. . . . But somehow, I can't explain, it feels right. This breaking connects me to everything and everyone, as if we were all branches of the same tree." Seemingly speaking for them all, she was saying that she was finally experiencing a feeling of being uncontaminated and alive for the first time since the dreadful event of years past.

At the conclusion of the workshop, Macy vowed to tell the world their story, a story of the long forgotten and long suffering Novozybkovians. This she has done, round and round the world since then. We thought she could use some help.

