

2 - 2014/2015

# PerVectum

magazine of study association

SCOPE | Vectum

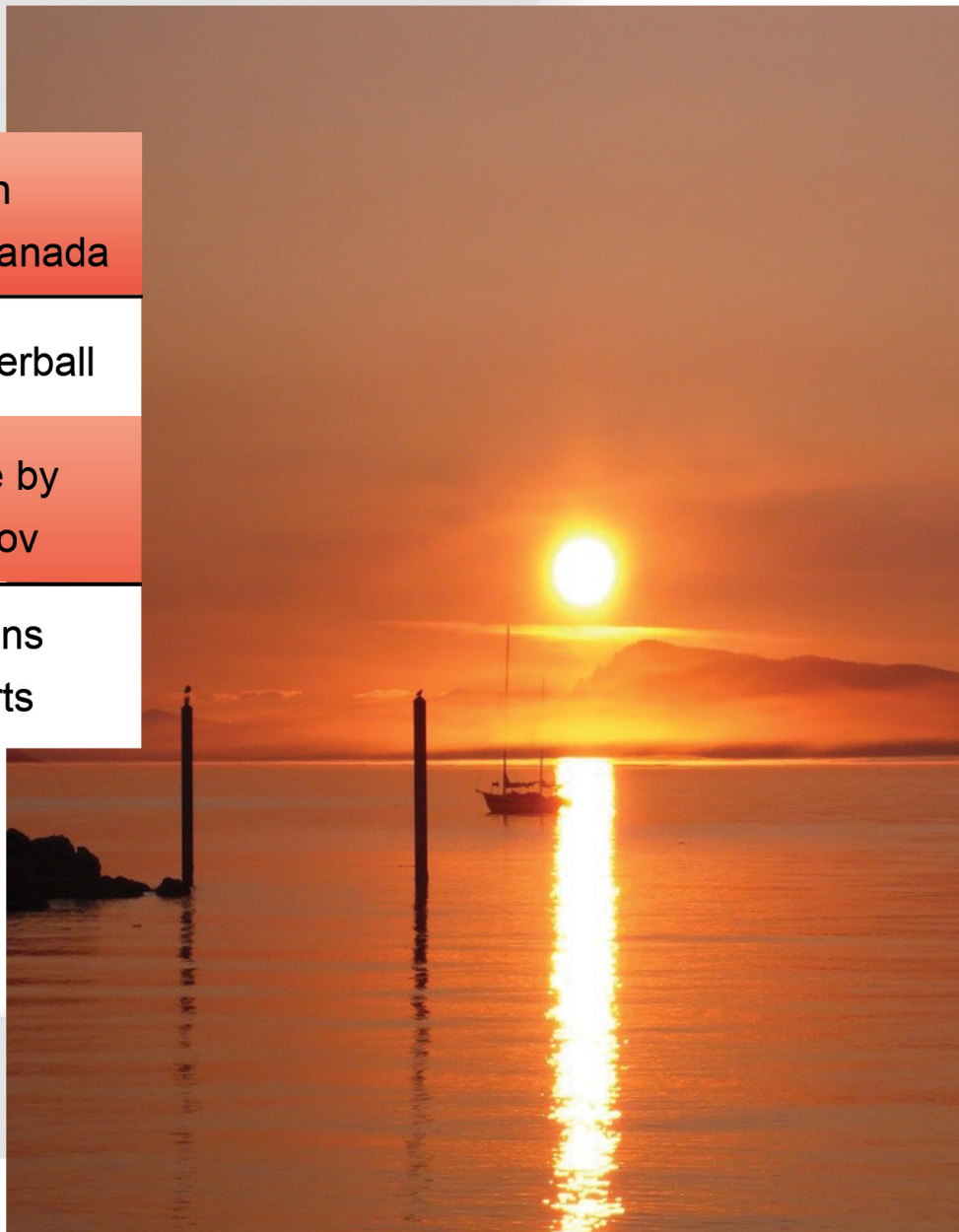
Inge Klaassen

Study Abroad in Canada

Report of the winterball

Research Article by  
Andrey Kateshov

Econometricians  
and their sports



## **The Board of 2014 - 2015**



**Wishes you happy holidays  
&  
a wonderful New Year!**

# Word from the President

Dear Econometricians,

The year 2014 is approaching its end, and at the time you read this, you will be enjoying a well-deserved holiday. Do you still remember what that actually was, a holiday? Even in my fourth year at Maastricht University, I cannot get used to the period between August and December without a week off. But we survived it and we are already halfway through this academic year! For us, this means we are also almost halfway through our board year (cliché number one: time flies when you are having fun!). A good moment for evaluation, that's why we will have our semi-annual GMA on Wednesday 23rd January. Of course you are all invited to come.

In fact, the end of the first half of the year is for all of us a good moment for evaluation. First year students, you have by now discovered what this study offers. The Christmas holidays are the best time to reflect on whether this study is suited to you or not. I think for all of you, the past half year has been difficult. Don't be too discouraged by this (or bad intermediate grades), you probably just had to get used to the university style of studying. Of course you have doubts



sometimes. I had those as well, especially during my first half year. But as long as you like (at most times) what you are doing, and as long as you are well motivated, you will be fine! On the other hand, maybe you really don't like what you are doing right now. Maybe it is all too theoretic, or just not interesting whatsoever. In this case, be honest to yourself, maybe something else is better for you. This is nothing to be ashamed of, so never see this as such! It is better for you to switch on time than finish a study you simply really don't like.

Second year students, your home cities for next year are revealed. I hope you all

are happy with your destination. From now on, the real 'looking forward to' can start, and I can promise you; your exchange is something worth looking forward to. All students I spoke to about their exchange have had a really great time, no matter where they went. Just talk to a third-year student, or master student, they will confirm this. But, exchange also demands preparations. There are many things you have to submit for your exchange, many things to plan and some deadlines. One piece of advice: don't worry too much about these things! Just make lists of things still to do, and deadlines that shouldn't be missed, and start on time with the preparations! Then everything will work out.

Third year students, for you an amazing episode of your study is approaching its end, or maybe already ended. I hope it was as amazing as you hoped it was. We all long for amazing stories! But first, some more days of travelling, or the Christmas break with your family. Although you will probably long for that amazing time again, it is always good to go back home. Cliché number two: what always will remain are the memories. So don't be sad about the fact that it's over, be grateful that it happened!

Master students, a couple of weeks ago you received your bachelor certifi-

cate. This means that the end of your time as a student is again a lot closer. Especially for those with a regular one-year master, this Christmas break is a good moment to think about your future. Do you maybe want to take an internship next year, or go for a year abroad maybe? Or will you immediately start working? My advice to you: be open-minded. When you are finished, you will have a bachelor degree in Econometrics and Operations Research, and a master degree in one of its specialisations. These are valuable certificates - many employers are willing to employ an econometrician, also many you have never thought of. Who knows, maybe your future lies where you never imagined ending up.

Evaluation also implies review. We as a board hope that during the second block, SCOPE | Vectum helped all of you in making student life a bit easier and more agreeable, with our activities and support. In the first week we had our traditional Research Lecture, where Sean Telg came to tell about his PhD research 'non-causal models and their applications'. Thanks again Sean, for giving us that lecture, and we appreciated it as well that you joined us in the Preuverij afterwards, for the also traditional block opening party. In the second week, we had the music quiz. I really enjoyed being your dj for the evening, and I hope you all liked it as



much as I did! In the third week, we got really challenged by the escape room. I cannot think of an activity that is more suited for Econometricians. The week after, we had the cycling dinner, where we could all enjoy a 3-course dinner, each course at a different location. Thanks to all of the cooks for making this a successful evening! In week 5, we had the SCOPE Winterball. It is always a pleasure to see everyone very nicely dressed up, and you didn't disappoint me! In the week afterwards, we already had our last activity of the year, Ice Skating. A great way to end up the SCOPE | Vectum year 2014!

And lastly, evaluation implies looking ahead as well. First of all, in the last week of January, we will organise our yearly business trip. This way, we give students in the last years of their study the opportunity to get to know some interesting potential future employers. Furthermore, on February 10th, the LED (National Econometricians Day), will take place at the NBC in Nieuwegein (near Utrecht) - another great way to get in contact with companies. The subscriptions for third year students and older students has already been open since 10th December, for second year students it will open on the first of January. We also have our Lustrum in period four, to celebrate our 20th birthday. So mark 7th March in your agenda! Not forgetting our weekly activi-

ties on the Tuesday evening will take place again in period four, we hope to see you all there again!

In the sequel of this PerVectum, you will of course be able to read about the activities of last period, brightened up by some pictures; furthermore, there is an article about Econometricians and their sports. Next, we have a research article by Andrey Kateshov about "Sentiment based university ranking", there will be a puzzle, and Inge will tell about her exchange experiences in Montréal. Enough to get through the Christmas holidays I would say!

In conclusion, on behalf of the board, we wish you all a merry Christmas and a happy new year, and we hope to see you all back healthy (and with 10 fingers) in 2015!

Joost Veth,  
President of SCOPE | Vectum 2014-2015

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CHEMISTRY THAT MATTERS™

December 2014

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at Maastricht University

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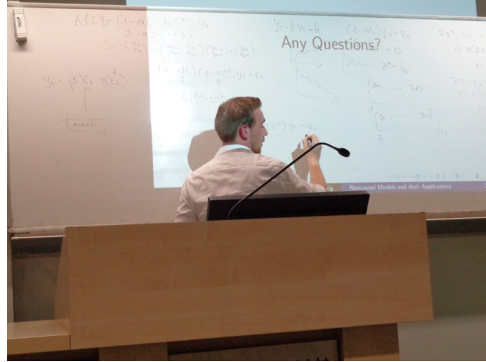
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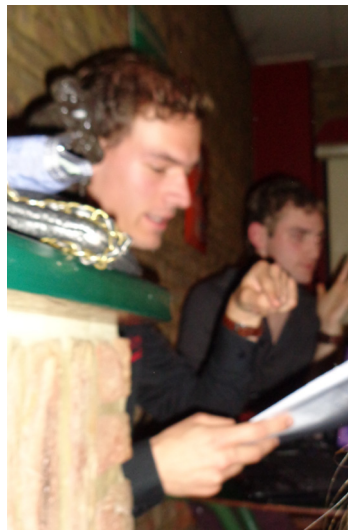
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# Impressions from Research Lecture & Block Opening Party





# Impressions from the Music Quiz



# Sentiment based university ranking

*By Andrey Kateshov*

## **Abstract**

Can computers rank universities? Can they do so without any input data, like surveys questionnaires, or citations data? Our current research is centred at answering that question. We are trying to develop an algorithm that will rank universities (or other lists of similar objects) based on opinionated textual data, like twitter and Internet discussion forums. Our work has just started and is far from being over. Therefore, we do not yet provide a concrete solution. Instead, several ways to approach the problem are discussed. In the end instead of conclusion we give a list of things that we plan to do next.

## **Introduction**

Our current search was largely inspired by the idea to create a new ranking of world's universities based solely on social networks and forums data. People often express their general opinion about this school or another, but also do so with regards to school's particular properties, such as qualities of particular departments, campus infrastructure, tuition and other things. It seems that at least some of these properties of factors are also taken into account by professional ranking agencies to create

their rankings. Moreover, people often directly compare two or more schools in their discussions, both generally and with regard to certain properties. In particular one Internet forum, talk.collegeconfidential.com (CC), contains several millions of discussions matching the above mentioned patterns. Having such an extensive dataset within our reach we have decided to explore various possibilities to create a ranking based on its contents.

In this article we discuss several approaches how a ranking can be assembled based on CC data.

## **Name count based ranking**

The inspiration for a ranking approach we call Name Count was a search for simple yet powerful technique. Recent advancements in Natural Language Processing allow us to extract sentiment degree of discussion (also known as opinion mining) (Pang and Lee, 2008) and various types of relationships between nouns, such as binary relationships partOf and isA (also known as relationship extraction) (Auger and Barrière, 2008). Both can be very useful in the analysis of complex discussion patterns, where people for example compare several universities

based on their geographical location, reputation and tuition fees. However, none of the techniques works perfectly and each brings and additional degree of uncertainty about how the final ranking algorithm will behave. The Name Count approach we present below, however, is very simple and extremely easy to understand.

At the core of Name Count approach lies the following assumption.

*Assumption 1A.* Two similar universities will appear together in one discussion more often than two universities that are different.

This assumption is a rather powerful one. It is also to illustrate as a form of undirected weighted graph. In this graph university names will be vertices and for each discussion in which university A and B have appeared we will increment the weight of (A,B) edge by one. In this way the two universities that often appear in one discussion will have a relatively heavy weight. We call such graph a *mutual count graph*. The following figure illustrates this concept using CC data.

In Figure 1 edges weights are represented with colour in the following order (from heaviest to lightest): red, green, blue, and grey.

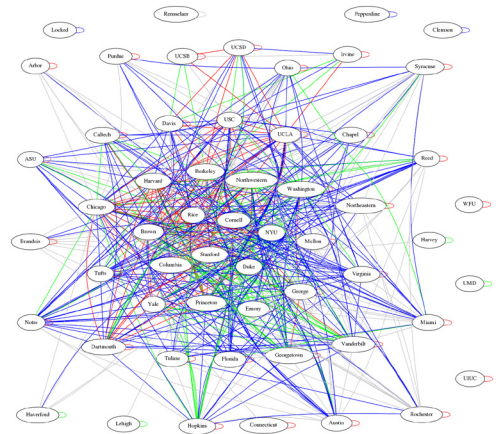


Figure 1.

Carefully studying the mutual count graph of CC data we can see that those universities closer to the centre of Figure 1 often appear together. Using Assumption 1 we can conclude that they are similar. Those universities outside of centre are similar to much lesser number of their partners. Finally, it appears that there is some sort of structure inside this graph that can be extracted as a linear ordering.

The fact that the ordering has to be linear (i.e. total order) calls us to tighten our original assumption.

*Assumption 1B.* Two closely ranked universities will appear together in one discussion more often than two universities that are far apart in the ranking.

### Minimum linear arrangement objective

Using assumption 1B we can now search for an arrangement of universities such that will closely match their weights in the graph. One well know graph ordering problem optimizes a similar metric (Bornstein and Vempala, 2004). It is called Minimum Linear Arrangement (MinLA).

MinLA is formulated as follows. Given an undirected weighted graph  $G=(V,E)$ , find a permutation of vertices  $\pi: V \rightarrow \{1,2,3,\dots,|V|\}$  such that the following sum is minimal

$$\sum_{\{i,j \in E\}} w_{ij} |\pi(i) - \pi(j)| := F(\pi)$$

Minimum linear arrangement objective function tries to diagonalise the weighted adjacency matrix. Also the weight differences in neighbouring cells become less significant. We can illustrate this with the following pictures

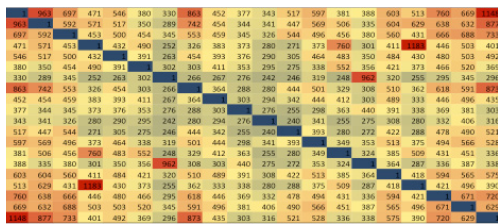


Figure 2.

In figure 2 and 3<sup>l</sup> higher edge weights correspond to hotter colours. In figure 2, 20 different universities are ar-

ranged in some arbitrary order. The weights distribution is quite turbulent, with many jumps between different colours. In figure 3 the same 20 the universities are optimized with respect to MinLA objective function. This arrangement it is located within 5% of the MinLA optimal solution (OPT). The colours distribution now is much smoother, corresponding to lesser violations of Assumptions 1A and 1B.

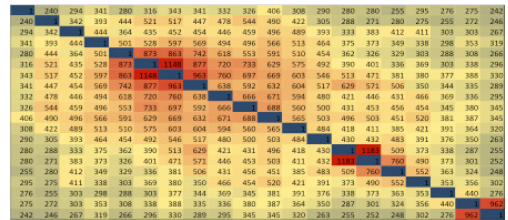


Figure 3.

Still, although it appears there is some justification for using MinLA as a ranking mechanism this approach is not free from problems.

### Some of the drawbacks of Minimum linear arrangement approach

First of all, MinLA is known to be NP-hard and is very difficult to approximate (Ambühl et al., 2011). In reality this means that is virtually impossible to solve instances with more than 30 vertices (Caprara et al., 2011). In our experiments we were able to create a mutual count graph with more than 60 vertices. It seems to make little sense



to rank less than 50-60 universities. So far we have failed to discover any structure in our graph that could yield a provable optimal solution. It means that we might not be able to solve our problem to optimality at all. Various heuristics exist that on average seem to provide solutions close to OPT (Caprara et al., 2011, Koren and Harel, 2002, Safro et al., 2006). However, partly due to the reasons discussed next we cannot be really sure that this is close enough.

Apart from being a difficult problem MinLA formulation has other disadvantages. Namely, lack of solutions correlation around the OPT. That means, very close to the OPT we can find two very different rankings. There are also thousands of valid solutions within 1% bound from the OPT. It means that although Figure 3 looks much better in terms of colour smoothness than Figure 2, there are many other orders with the same quality of smoothness. This property may be caused by the nature of the MinLA objective or by the dataset. For example such behaviour will be natural for a graph generated purely by some type of noise. In any case it renders even some very good performing heuristics useless to us.

In addition, solutions produced by

MinLA are reversible. For a given order  $\pi$  with a MinLA score of  $F(\pi)$  the reversed order  $\phi$  (i.e.  $\phi := |V| + 1 - \pi$ ) will have the same score:

$$F(\pi) = F(\phi)$$

Further, if we look at the optimal MinLA of a star  $S$  with the centre vertex  $v$  it will be placed in the middle of the arrangement. Since our graph is a collection of intersecting stars if one of these stars will have bigger weights of its edges than that of the others the whole arrangement will be dominated by its structure. That means the optimal arrangement of the graph will be very close to that of the star with its centre gravitating towards the middle of the arrangement.

All these properties call the choice of MinLA mechanism into a question.

### What is next?

We are currently trying to answer the following question:

*Is there an objective function, which orders vertices of the CC mutual count graph, such that:*

- *Assumptions 1A or/and 1B are respected; and*
- *in a certain neighbourhood of OPT all solutions are highly correlated.*

If the answer to the above question is YES all we need is to find a correct objective function. However, it may turn out to be a very complicated task. So far we have no other candidate except for MinLA with various transformations of the weights and order distances.

Another option is to improve our dataset. For example, instead of undirected graph we can construct a directed one. In this case the direction of the edge corresponds to the partial order outcome (the graph should be acyclic). The weight of the edge may for example correspond to the probability of a particular direction being true. Or it may signify the importance of this particular orientation of the vertices in the final linear arrangement. The latter option is closely related to a problem called Linear Ordering (LO) (Grötschel et al., 1985). It is formulated with the following objective:

$$\sum_{\pi(i) < \pi(j)} w_{ij}$$

The required direction in our graph can be obtained with the help of Natural Language Processing tools we mention above. Even if no valid ranking mechanism will be discovered the complications we are facing can also

be used to understand the validity of existing ranking mechanisms used by some well known ranking agencies.

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<sup>1</sup> I would like to thank Hans-Christian Jaeger for preparing these figures

# Impressions from Ice Skating





# Escape Room

*By Carien Leushuis*

Being locked inside a small room for an hour may not sound like much fun. However, Econometricians in Maastricht seem to have a different opinion about this as places for the so-called Escape Room were sold out in a second! Now you might wonder, what is Room Escape? And to be honest nobody, including the activities committee organizing the event, was able to give a clear answer to this question :).

On November 13 we gathered at the SBE exited to head off to the Escape Room. Finding the Escape room in the first place was already quite a challenge as it was located in the industrial area on the edge of the city. But when we managed to find the building on time we were ready to let the game begin. After some instructions the assignment appeared to be extremely simple: escape the room within an hour. The only way to get out on time is by finding the hidden objects, solving the puzzles and figuring out the clues. No sooner said than done..

In groups of five we entered one of the three rooms all representing a different theme consisting of the army room, grandpa's office and the laboratory room. I myself was locked in Grandpa's office. At first glance it looked

like any other ordinary room. But then the door closed behind us, was locked quickly and on the wall there was a clock which started to count down from 60 minutes to zero. Dusty paintings, century-old books and grandpa's famous office accommodating one of the remaining typewriters, filled the room positioning any object as a clue. We started turning over furniture, plunging through flagons and ripping the paintings off the wall in an attempt to find even the smallest clue that would help us to escape before the hour had elapsed. Hidden padlocks, electronic locks, hidden compartments and a secret room behind the wall full of new riddles and clues basically led us to break the code. The clues became more complex, the possibilities increased and time continued to dwindle down.

I won't tell you how the story ends. The Escape Room is a great new concept in Maastricht I would definitely advice you to experience it yourselves before knowing how the story continued and I think everyone agrees!

# Rowing

*By Roos Rooijackers*

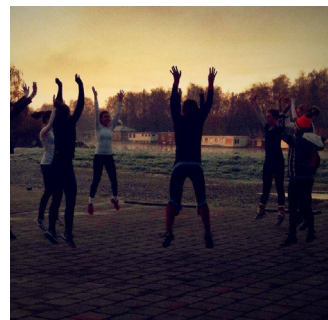
During INKOM of 2013, I wasn't really sure whether I should join a student association or not.

Starting a new chapter in your life where everything is English (which wasn't my best subject in high school), studying at a university, living on my own, it all adds up! At the end of the week, although I was a little bit insecure, I did sign up at Saurus, the student rowing association of Maastricht.

Looking back, I do not regret joining M.S.R.V. Saurus, which is the biggest student sports association of Maastricht. In my first year as a member, I, along with 40 other girls, started the selection rounds for the women's competition rowing team of Saurus. As a part of this team, you represent Saurus at almost every student rowing com-

petition throughout the Netherlands, while trying to beat the women's teams of other student association in the Netherlands. After training 3 to 5 times a week for 2 months, I heard I was on the team! Together with 7 other rowers and 1 amazing cox, we were going to rule the waters of the Willem-Alexanderbaan, the Amstel and the Bosbaan in Amsterdam (World Cup Rowing 2014). From then on I was training 5 to 8 times a week with my team. This means that I saw my team members every day and I therefore got to know them better, which led to us having such an amazing time together. Most importantly, we got to do what we loved most: rowing.

Even though it was quite difficult for me to combine my studies with rowing, I still managed to get through



three quarters of the year. Unfortunately, my physical condition and lack of time that I had for studying convinced me to quit the team. I deeply regret my choice of quitting, but I now have the possibility to be more active in the social gatherings of Saurus, such as joining commissions and going to parties at the bar of Saurus. Aside from this, I still manage to do some recreational rowing.

There are different commissions available at Saurus. A couple of examples are: the INKOM-commission (arranges the INKOM), the PR-commission (arranges rowing clinics), the 'sociëteits'-commission (takes care of the beer and cleaning of the toilets), the 'examen'-commission (gives people predicates to row in better boats), the 'kascontrole'-commission (controls the treasurer), and so on. We also have 2 sororities (Linque and Nynève) and 2 fraternities (Sunergos and Librium), for those of us who would like to spend

less time in boats and more in the bar.

Playing a mixed strategy by combining sports and a student association, will get you a better payoff than when you are playing a pure strategy. For me, Saurus is the Nash Equilibrium of Maastricht. It contains all the aspects of sports (not just rowing, but also cycling and fitness) and combines this with a student life.



## Puzzle

‘It was a wonderful party,’ said Lucilla to her friend Harriet.

‘Who was there?’

‘Well – there was one grandfather, one grandmother, two fathers, two mothers, four children, three grandchildren, one brother, two sisters, two sons, two daughters, one father-in-law, one mother-in-law and one daughter-in-law.’

‘Wow! Twenty-three people!’

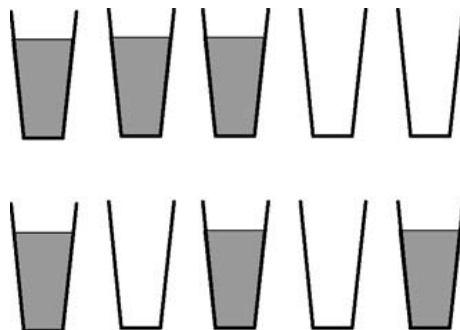
‘No, it was less than that. A lot less.’

What is the smallest size of party that is consistent with Lucilla’s description?

## Solution to the Puzzle

PerVectum issue 1, 2014-2015

Pick up the second glass from the left, pour its contents into the fifth glass, and replace the second glass.





# Impressions from the **Cycling Dinner**

By *Moritz Buchem & Nicolas Ziob*

## *"Herrencreme"*

### **Ingredients (for 4 Portions)**

- 1 Package of pudding powder (Cream-pudding)
- 40 grams of sugar
- 500 ml milk
- 100 g of bittersweet chocolate
- 5 Tablespoon of Rum
- 200 g cold whipped cream
- 1 Package of "Sahnesteif" (powder to make whipped stiff)
- 1 Package of vanilla sugar

### **Procedure**

(1) You mingle pudding powder and sugar. You add slowly 6 tablespoons of milk and stir it until it is smooth. The rest of milk is heated until cooked and mingle it with the prepared powder. Put it back on the cooker and cook it while constantly stirring for 1 minute. You put cling film directly on the hot pudding's surface and let it cool down.

(2) You break the chocolate into little pieces and mingle some pieces and rum with the cold(!) pudding.

(3) Then, you whip the cream (with "Sahnesteif") and vanilla sugar. 2/3 of the cream you mix with the pudding while you leave the rest to garnish the cream on top. The rest of the chocolate can be added on the cream and if you like you can add some cherries as well.



by *Anna Lena Maier*

**Ingredients**

- Mushrooms
- Salad
- Salad sauce
- Bacon
- Cottage cheese

**Procedure**

Preheat oven to 175 degrees. Clean mushrooms with a damp paper towel. Carefully break off stems. Using a little spoon, fill each mushroom cap with a generous amount of cream cheese. Wrap the stuffed mushrooms with bacon. Bake for 20 minutes in the preheated oven.

Serve with fresh salad.



# Ultimate Frisbee

## "Like throwing with your dog at the beach?"

by *Merit Geldmacher*

That is the reaction I often get when I tell of the sport I am doing. But if you are studying EOR, you have probably heard of Ultimate Frisbee and our association *Ultimaas*. Not only because I can instantly name at least 20 Econometricians who either are in the Ultimate Frisbee team or join practice once in a while, but also because of weird yet interesting people standing in front of the lecture hall and steadily trying to recruit new members.

In case you don't know what I'm talking about, Ultimate is a limited-contact, self-refereed team sport played with a flying disc (or "frisbee"). Two teams of seven players compete on a playing field about the same length as a football field, but narrower. At each end of the playing field there is an end zone and each team defends one end zone. They score a goal if one of their players catches the disc in the opposite end zone. It involves a lot of running (and with running, I don't mean jogging but sprinting).

It doesn't just look cool if you run faster than you can or if you fly in the air and catch the disc or get a defense, but Ultimate also keeps you in shape. Besides a lot of running, you train your whole body and we sometimes have quite intense push-up or burpee units and at our practices. We train three times a week, both



indoors and outdoors and a typical session looks as follows. After some throwing and warming-up we do some drills, for example throwing, conditioning, offense or defense drills. After that we play a game, which is the most fun part. At weekends we sometimes play at tournaments or national competition days. This usually includes long train rides (because everything in the Netherlands is far away if you live in Maastricht) and a lot of fun and Ultimate! But it is not just about the sport itself, Ultimate is a lifestyle and your team becomes like a second family to you. We do not only meet up for trainings but also for dinners, social events and parties. All that and especially tournaments bind together, you can share your most secret stories with your teammates, and you make friends for life.

Just join our Facebook page (<https://www.facebook.com/Ultimaas?fref=ts>) or come around if you want to give Ultimate a try – it's definitely worth it!



## M.S.M.W.V. Dutch Mountains

By *Lars Quaedvlieg*

What not everyone knows about me, is that besides an econometrics student, I am a cyclist. I fell in love with the sport when I was twelve and it never let go of me. I worked very hard to afford my own bike, my beloved Focus Izalco who has now approximately driven 40.000 kilometres with me. Before studying in Maastricht, I spend several years racing every weekend in the Netherlands, Belgium or Germany.

The highlights of my competitive career were winning the national climbing jersey and riding for the national team in a world cup race. Once I started studying Econometrics, my competitive career ended for several reasons (including the discovery of beer), but I still loved the sport very much. After half a year, I finally got my own room in Maastricht and I was looking for people to ride with. That's when



I found out about Dutch Mountains, the student cycling and mountain bike association. Dutch Mountains has now 65 members, who share the passion for cycling and/or mountain biking. Among those 65 there are three Econometricians: Lieske Coumans, Wim Plender and me. It has to be said that that is not an impressive number, however, those three are very active members. It's the fourth consecutive year that there is an econometrician in the board: Lieske took care of public relations in 2011-2012, Wim was treasurer in 2012-2013, Lieske was secretary in 2013-2014 and I took over for secretary two months ago for the 2014-2015 board. Although I do not see a successor immediately, I still hope it will be possible to put for five years in a row an econometrician in the board.

We train five times a week, in the winter one of these trainings is indoor spinning and another one is the training for mountain bikers. We always ride a nice tour through the beautiful landscape of Zuid-Limburg or Belgium and do some exercises. About 10 to 15 members do competitive cycling and ride races in the weekend. Besides the sporty part, we are also very active on the social part. We organise an activity every month, have a drink with each other and organise a members weekend three times a year. We also own our

own car, named Lilly, who takes us everywhere we want to go.

If you (think you) like cycling or mountain biking and would like to ride with us some day, you are always welcome. On <http://www.mswvdutchmountains.nl/index.php/nl/> you'll find more information about us and if you have questions or would like to join one of our trainings, please send a mail to [dm.maastricht@gmail.com](mailto:dm.maastricht@gmail.com), I will personally reply to you! We have some club bikes stored in the basement of the medicine faculty, so it is possible to borrow a bike. Moreover, if you would like to know more about Dutch Mountains, feel free to ask me, Lieske or Wim.



# Scope Winterball

*by Eef Lemmens & Mark van der Spoel*

**What?** Scope Winterball 2014

**Where?** Crown Plaza Hotel

**When?** November 25<sup>th</sup>

Temperatures matched the usual ones in December on the evening of the lovely Scope Winterball. For the last couple of years this activity has been the highlight of November. The Winterball marks the beginning of a turbulent month with both nice things (well-deserved Christmas break, Santa's presents, no university for at least a week) as well as a stressful exam week. Nonetheless, quite some econometricians were at this event.

As usual the Vectum board invited the active Vectum members that were going to the Winterball for the 'pre-Winterball dinner', which was held at the Italian restaurant Cucina 50.

Since the exchange destinations were published at the same time as the Winterball, there was enough conversation material, as the second year students are looking forward to their time abroad and the masters are still reflecting on their magnificent experiences.

The dinner was gone in no time, so we all left the restaurant with our stomachs full of pizza, pasta or lasagne to head to this year's location, the Crown Plaza Hotel. After a 10 minute

walk we arrived at the location and we went straight inside to warm up. Some shoes were changed at the restaurant in order to prevent them from getting damaged by the cobblestones of Maastricht.

This year's theme was Casino Royale, and it was clearly visible in the decorations, which included decks of cards. Some people (no econometricians) even collected a complete set of cards to play games because they did not enjoy the party as much, even though we do not see a reason for that. At first there was a live band that performed for over an hour. Afterwards a DJ took over and provided us with decent house beats. After several hours and many drinks, the party ended. It was a great night, and we think everyone that went would agree.



# Study Abroad

## Exchange Semester in Canada

by *Inge Klaassen*

At the beginning of August I left for my study abroad at the UdeM in Montreal, Canada. Since then I have met the most amazing people, experienced the craziest situations and traveled as much as I could.

Whether it was having a discussion about the bible with a Jehovah's witness, about the economical interpretation of The Wizard of Oz with a businessman or about the remarkable difference between the Indian (Hindi) and the Dutch meaning of the word 'aap', I can safely say my time here has never been boring. But before jumping to conclusions, I'll start at the beginning. I traveled throughout the whole month of August. I started with visiting my friend, Cindy, in Texas. We became friends when she was in the Netherlands for her high school exchange a couple of years ago. In a week's time, I got a taste of the real Texan lifestyle, if y'all know what that means; from getting our nails done before shooting to an end of the summer beach bash party, a week I'll never forget. Then it was time to catch my plane to Seattle; the Emerald City. Now guess where the Wiz-



ard of Oz discussion started. I was welcomed by lots and lots of rain and a Hempfest. I almost felt as if I was back in the Netherlands! From Seattle I started a mini road trip on which I walked and climbed through the rain forest of the Olympic National Park and visited Forks and the beach of La Push (I'm sorry for all the Twilight haters). I took a couple of ferries to end up at Orcas Island, which is the largest of the San Juan Islands and is located in the northwestern corner of Seattle. The view from Mount Constitution is something I'll never forget and in the evening we climbed the rocks at the beach just in time to see one of the most beautiful sunsets I've ever seen.

Next on the program was a whale watching trip. I quickly found myself surrounded by American bird



watchers and I can proudly say I can now finally spot the difference between a marbled murrelet and a pigeon guillemot. After a number of false alarms, where someone got all excited about seeing some kind of bird instead of a whale, we finally found a large group of orcas hunting for salmon. My new American friends, however, were far more interested in the tufted puffin that had just shown up next to our boat. It was time for me to visit some new cities. I first went to Portland where I ate a voodoo doll donut and drank a couple of beers in one of the many micro-breweries there. This was followed by a 12-hour bus trip to Vancouver. There I was first surprised by a massive outdoor yoga session, which apparently was part of the preparation for a marathon the day after. A couple of blocks further I could take pictures with Naruto, Pickachu and Sailor Moon at the convention Anime Revolution 2014. An interesting start of my days in Vancouver! I went to rent a bike for a ride along the sea wall at Stanley Park. When the man at the bike shop found out I was Dutch, he quickly reduced the estimated time it would take me to bike around the park to 45 minutes. I confirmed the stereotype by bringing the bike back within that time, even though I stopped

multiple times to take pictures and to get out of the way of people almost falling off their bikes! I guess not everyone is used to riding bikes. From Vancouver I took a bus North in the direction of Squamish. That was where my overnight rafting trip was going to start.



After conquering the whitewater river we set up camp surrounded by mountains, trees and glaciers. We zipped our tent open so we could see the beautiful sky filled with stars while falling asleep. A couple of days later it was finally time for me to go to the city where I would live the next couple of months; Montreal. The moment I arrived I already knew I was going to love this city. After a bit of a hassle I finally found a room and took care of last minute university stuff. It didn't help that my study advisor spoke Quebec French so fast that it was almost impossible to follow. Fortunately,



as the semester started, I got more and more used to the Québécois. It only took me a couple of weeks to start travelling again. The first trip was to Toronto and the Niagara Falls with a group of students from a different university in Montreal.



I made new friends, got soaked on the boat to the falls, experienced the Nuit Blanche in Toronto and fell in love with a typical product from this region; ice wine. More (long) weekend trips followed and between classes I've visited Mont-Tremblant, Ottawa, Quebec City, Washington D.C., Philadelphia, Baltimore and Chicago. Although each trip was an amazing experience, every time I came back to Montreal I realized how much I came to see this city as my new home. I'm starting to feel like a real Montrealer, even though I don't really like poutine and I'm probably literally going to freeze if the temperatures keep dropping like they have been doing lately. I even became a fan of ice hock-

ey after going to my first game; Montreal Canadiens vs New York Rangers (3-1). Go Habs go!



There are always more activities to do here and people always wander on the streets, even when it's so cold that you can't feel your nose anymore after a ten-minute walk. I came to the conclusion that the weather is truly bipolar. It went from sun and a nice summer breeze to frost and snow in a couple of days, to be followed by t-shirt weather again a week later. In whatever weather condition, one of my favorite places to go is the Mont Royal Park, which is actually a mountain in the middle of the city. It provides the perfect nearby nature get-away. In between the trees you don't see, hear or notice the city around you. I also love the city's attraction park, La Ronde.

A thrilling roller coaster ride is sometimes just what I needed in



between lectures. Furthermore I love the bilingualism, the night-life, the atmosphere, the random stunning views of the Montreal sky and the people that have become my friends. I've taken part in true American traditions. Halloween where we got dressed up and carved pumpkins that were supposed to look scary, although mine turned out to be the cutest pumpkin ever followed by a Canadian thanksgiving dinner. At the moment of writing I still have 6 weeks left until I return to the Netherlands. I already have more trips planned: a chalet nature weekend-trip, Christmas on the beach in Cuba and New Year's Eve in New York. I would almost forget that finals are coming too! There are many differences between Maastricht University and Université de Montréal. Most courses here have a three-hour lecture each week in a big lecture hall with many students. Although courses continue for one semester, they are split into two

periods. The first one ends with midterms and the second one with finals. At the beginning of my first exam here I could almost hear the Maastricht voice in my head, 'It's nine o'clock, start of this exam...!', but they are far less strict here. The supervisors often make jokes before and even during the exam and there is no one checking you on the toilets. It even happens that the course coordinator finds out he made a mistake in some question and lets us know an hour after we started. As many people had already told me, the study load and difficulty are indeed significantly lower than in Maastricht, which is great because it gives me the time to travel and see as much of this area as I can!

Of course there is a lot more to be said, but here I'd like to conclude my story about my study abroad so far. Although I know I'll have a hard time leaving Montreal in January, I'd like to say to all of you; I look forward to seeing you again (or meeting you) at one of the Vectum activities in the new year! Happy holidays!

# Upcoming Events

## *January 23<sup>rd</sup>* **Semi-annual GMA**

We are almost halfway through our board year: a good moment for evaluation. All our members are invited to come, we hope to see you all there.

## *February 3<sup>rd</sup>* **Research Lecture & Experiences exchange students**

Our third research lecture of the year will be given by Anne Balter, a current PhD student. She will give a lecture in the field of actuarial sciences. After the lecture, a couple of third-year students will talk about their exchange semester.

## *February 10<sup>th</sup>* **LED**

This year the 'national econometrics day' will take place in Nieuwegein. Subscription are already open, but only for last year bachelor students and Master students.

## *February 24<sup>th</sup>* **Squash**

After the carnival holidays it is time to do some sports! We will organize a squash tournament in the center of Maastricht.

## *March 3<sup>rd</sup>* **Movie night**

As this activity takes place in the same week as the lustrum, we decided to keep the activity a bit relaxed. We will ask you about your movie preferences in due time and then we will watch it all together!

## *March 7<sup>th</sup>* **SCOPE|Vectum lustrum**

SCOPE | Vectum celebrates its 20th birthday! Come and join us at our birthday party! More information will follow.

## *March 10<sup>th</sup>* **Lasergaming in the caves**

In week 5 we will go to Valkenburg all together, to have an exciting event in the caves!

## *March 17<sup>th</sup>* **Beer/Wine tasting**

This year we decided to take a little variation on the regular beer tasting event, to make it accessible to more people. You can indicate beforehand whether you would like to taste beer or wine.