

# 17th Cologne-Twente Workshop on Graphs and Combinatorial Optimization

University of Twente, Enschede

July 1–3, 2019

## General Information

### From/To the Campus

**From Railway Station Hengelo.** Take either bus 16 to UT/Langenkampweg (Sunday afternoon and evening only!) or bus 9 to Enschede (bus 8 also passes the University in the afternoon on weekdays).

**From Railway Station Enschede.** Take either bus 1 to UT/Langenkampweg or bus 9 to Hengelo (bus 8 also passes the University in the afternoon on weekdays).

**From Railway Station Enschede Kennispark.** Take bus 1 to UT/Langenkampweg or walk for about 15 minutes.

**To Enschede city centre and back.** Take bus 1 to Wesselerbrink and get off at the railway station. Last bus back to the university is at 23:37.

### Locations

**Sessions.** All technical sessions take place in the U Parkhotel (situated in building 45 (Hogekamp) on the campus map) in the conference rooms C3 and C4.

**Excursion.** We will visit the Grolsch brewery on Tuesday, July 2, 2019. The bus towards Grolsch will depart at 13:00 in front of the U Parkhotel. The return at the campus is expected around 17:00.

**Conference Dinner.** The conference dinner (BBQ) takes places on Tuesday, July 2, 2019, 18:00 at Boerderij Bosch (building 62 on the campus map).

### Internet

You can use “eduroam” to connect to the internet. If you have internet access in your hotel on the campus and have obtained an account for that purpose, you can use the “UTGUEST” network. If neither of these options works, you can use the WLAN network “Enschede Stad Van Nu”.

See [www.utwente.nl/en/campus/facilities/wifi-wlan/](http://www.utwente.nl/en/campus/facilities/wifi-wlan/) for more information.

### Proceedings

A PDF version of the proceedings is available at [wwwhome.ewi.utwente.nl/~ctw/CTW2019Proceedings.pdf](http://wwwhome.ewi.utwente.nl/~ctw/CTW2019Proceedings.pdf).

# Program

Monday – July 1, 2019

10:00 – 10:50 Registration and Coffee

10:50 – 11:00	Opening (C3)
---------------	--------------

	C3, chair: Johann Hurink	C4, chair: Hajo Broersma
11:00 – 11:30	<b>Christoph Buchheim, Dorothee Henke</b> The robust bilevel continuous knapsack problem	<b>Wei Zheng, Hajo Broersma, Ligong Wang</b> Toughness and forbidden subgraphs for hamiltonian-connected graphs
11:30 – 12:00	<b>Martina Cerulli, Claudia D’Ambrosio, Leo Liberti</b> On aircraft deconfliction by bilevel programming	<b>Radu Mincu, Camelia Obreja, Alexandru Popa</b> The graceful chromatic number for some particular classes of graphs
12:00 – 12:30	<b>Gaia Nicosia, Andrea Pacifici, Ulrich Pferschy, Edoardo Polimeno, Giovanni Righini</b> Optimally rescheduling jobs under LIFO constraints	<b>Samuel Mohr</b> On Uniquely Colourable Graphs

12:30 – 14:00 Lunch

	C3, chair: Bodo Manthey	C4, chair: Andrea Pacifici
14:00 – 14:30	<b>Zacharias Heinrich, Rüdiger Reischuk</b> Improved Dynamic Kernels for Hitting-Set	<b>Andreas Schwenk</b> On the Problem Class of Optimal Technology Implementation into a Multisectoral Energy System (OTIMES)
14:30 – 15:00		<b>Julie Poullet, Axel Parmentier</b> Ground staff shift planning under delay uncertainty at Air France
15:00 – 15:30	<b>Temel Öncan, M. Hakan Akyüz, İ. Kuban Altinel</b> An exact algorithm for the maximum weight perfect matching problem with conflicts	<b>Xavier Ouvrard, Jean-Marie Le Goff, Stéphane Marchand-Maillet</b> Multi-diffusion in Hb-graphs

15:30 – 16:00 Coffee

	C3, chair: Giovanni Righini	
16:00 – 16:30	<b>Matteo Cosmi, Gaia Nicosia, Andrea Pacifici</b> Lower bounds for a meal pickup-and-delivery scheduling problem	
16:30 – 17:00	<b>Marco Casazza, Alberto Ceselli, Giovanni Righini</b> A single machine on-time-in-full scheduling problem	
17:00 – 17:30	<b>Stefan Lendl, Britta Peis, Veerle Timmermans</b> Matroid Sum with Cardinality Constraints on the Intersection	

17:30 – Dinner (on your own)

## Tuesday – July 2, 2019

8:15 – 8:45 Coffee

	C3, chair: Marc Uetz	C4, chair: Hajo Broersma
8:45 – 9:15	<b>Nili Guttman-Beck, Michal Stern</b> Clustered Feasibility by Breaking	<b>Hüseyin Acan, Sankardeep Chakraborty, Seungbum Jo, Srinivasa Rao Satti</b> Succinct Data Structures for Families of Interval Graphs
9:15 – 9:45	<b>Florian Thaeter</b> Hardness of $k$ -anonymous microaggregation	<b>Amotz Bar-Noy, Toni Böhnlein, David Peleg, Dror Rawitz</b> Vertex-Weighted Realizations of Graphs
9:45 – 10:15	<b>Gabriele Iommazzo, Claudia D'Ambrosio, Antonio Frangioni, Leo Liberti</b> Algorithmic configuration by learning and optimization	<b>Qiannan Zhou, Hajo Broersma, Ligong Wang, Yong Lu</b> On sufficient spectral radius conditions for hamiltonicity

10:15 – 10:45 Coffee

	C3, chair: Matthias Walter	C4, chair: Johann Hurink
10:45 – 11:15	<b>Samuel Fiorini, Krystal Guo, Marco Macchia, Matthias Walter</b> Lower Bound Computations for the Nonnegative Rank	<b>Benjamin Gras, Mathieu Liedloff</b> Enumeration of Minimal Connected Dominating Sets in chordal bipartite graphs
11:15 – 11:45	<b>Axel Parmentier, Victor Cohen, Vincent Leclère, Guillaume Obozinski, Joseph Salmon</b> Mathematical programming for influence diagrams	<b>Zhiwei Guo, Hajo Broersma, Binlong Li, Shenggui Zhang</b> Compatible spanning circuits in edge-colored Fan-type graphs
11:45 – 12:15	<b>Victor Cohen, Axel Parmentier</b> Linear programming for Decision Processes with Partial Information	<b>Alexander Grigoriev, Tim A. Hartmann, Stefan Lendl, Gerhard J. Woeginger</b> Dispersing obnoxious facilities on a graph

12:15 – 13:00 Lunch

13:00 – 17:00 Excursion to Grolsch (departure in front of the U Parkhotel)

18:00 – Conference dinner (BBQ) – location: Boerderij Bosch (building 62 on campus map)

## Wednesday – July 3, 2019

8:30 – 9:00 Coffee

	C3, chair: Walter Kern	C4, chair: Gaia Nicosia
9:00 – 9:30	<b>Michael A. Henning, Arti Pandey, Vikash Tripathi</b> Algorithm and Hardness Result for Semi-paired Domination in Graphs	<b>Reinoud Joosten, Eduardo Lalla-Ruiz</b> Inductive Shapley values in cooperative transportation games
9:30 – 10:00	<b>Tommaso Adamo, Gianpaolo Ghiani, Emanuela Guerriero</b> An enhanced lower bound for the Time-Dependent Traveling Salesman Problem	<b>Benito van der Zander, Johannes Textor, Maciej Liśkiewicz</b> Graphical Methods for Finding Instrumental Variables
10:00 – 10:30	<b>Thomas Lachmann, Stefan Lendl</b> Efficient Algorithms for the Recoverable (Robust) Selection Problem	<b>Saeid Kazemzadeh Azad</b> Combinatorial optimization in structural engineering: recent trends and future needs

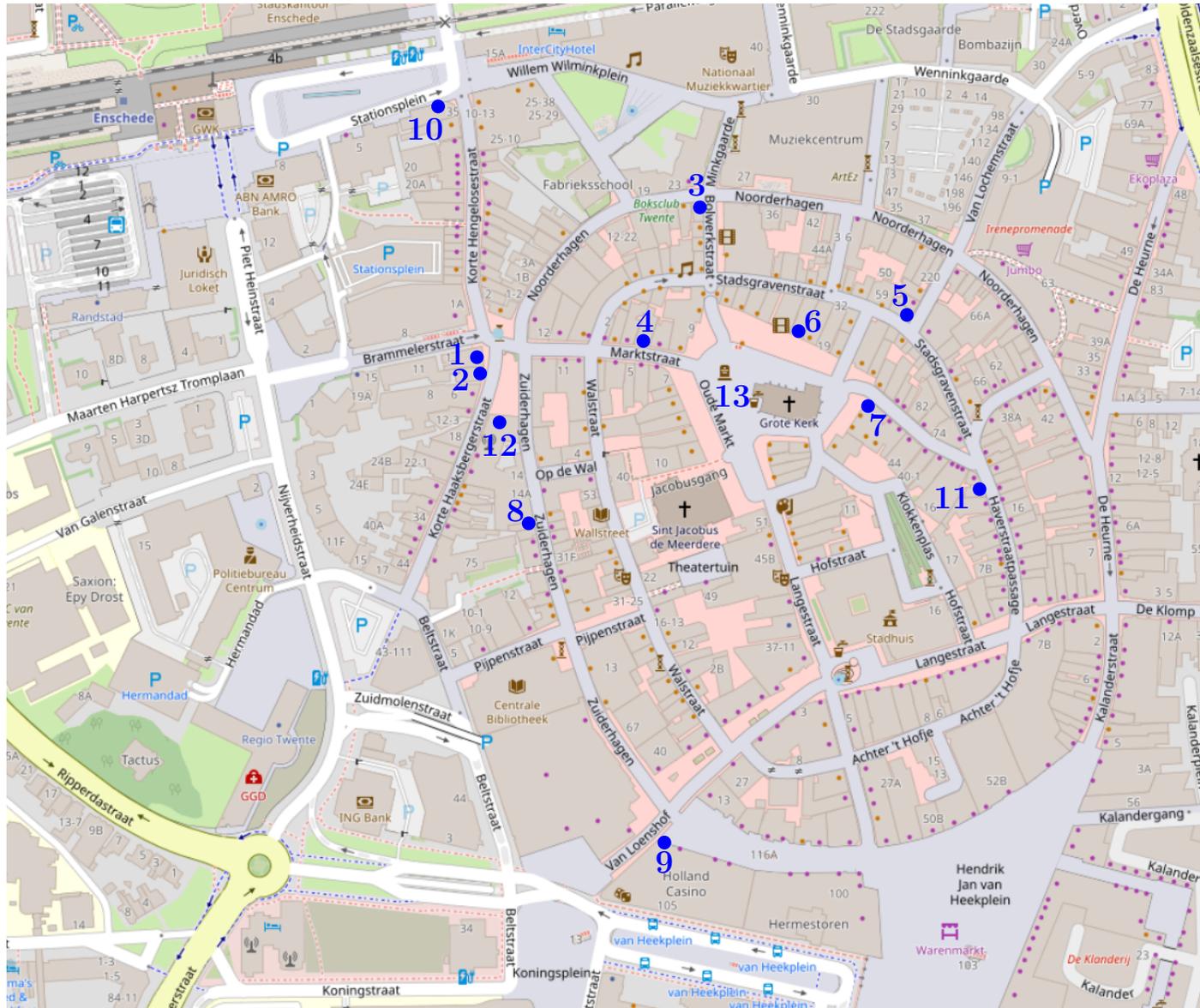
10:30 – 11:00 Coffee

	C3, chair: Alexander Skopalik	
11:00 – 11:30	<b>Luisa Frickes, Simone Dantas, Atílio G. Luiz</b> The Graceful Game	
11:30 – 12:00	<b>Damián-Emilio Gibaja-Romero, Vanessa Cruz-Molina</b> A colorful generalization for the Poison Game	
12:00 – 12:30	<b>Matthias Feldotto, Pascal Lenzner, Louise Molitor, Alexander Skopalik</b> From Hotelling to Load Balancing: Approximation and the Principle of Minimum Differentiation	

12:30 – 12:40	Closing (C3)
---------------	--------------

12:40 – Lunch

## City Map and Restaurants



Many restaurants have a cheap daily dish (daghap)

1. Los Ponchos, Mexican, regularly priced
2. Olympic, Greek, regularly priced (daghap) [closed on Monday]
3. Restaurant de Tropen, higher priced
4. Steakhouse Goody's, American steakhouse, regularly priced, for carnivores
5. Big Belly's Tavern, Irish, regularly priced [closed on Monday and Tuesday]
6. SamSam, regularly priced (daghap)
7. De Beiaard, pub specialized in beer, regularly priced, has "Burger of the month dish" but also à la carte
8. El Gaucho, steakhouse, higher priced [closed on Tuesday]
9. Yuzu, Asian, regularly priced [closed on Monday]
10. Perron 22, higher priced [closed on Monday and Tuesday]
11. Sapori e Ricordi, Italian, higher priced [closed on Sunday and Monday]
12. Turquoise, Turkish, regularly priced [closed on Tuesday]
13. Many more at and around de Oude Markt

It is also possible to have dinner on campus, for instance in the Theatre Café (located in building 47 on the campus map) or the U Parkhotel Restaurant (located in building 45 on the campus map).

This map is downloadable at [www.utwente.nl/campusmap](http://www.utwente.nl/campusmap)

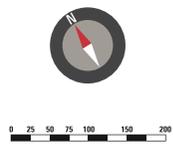
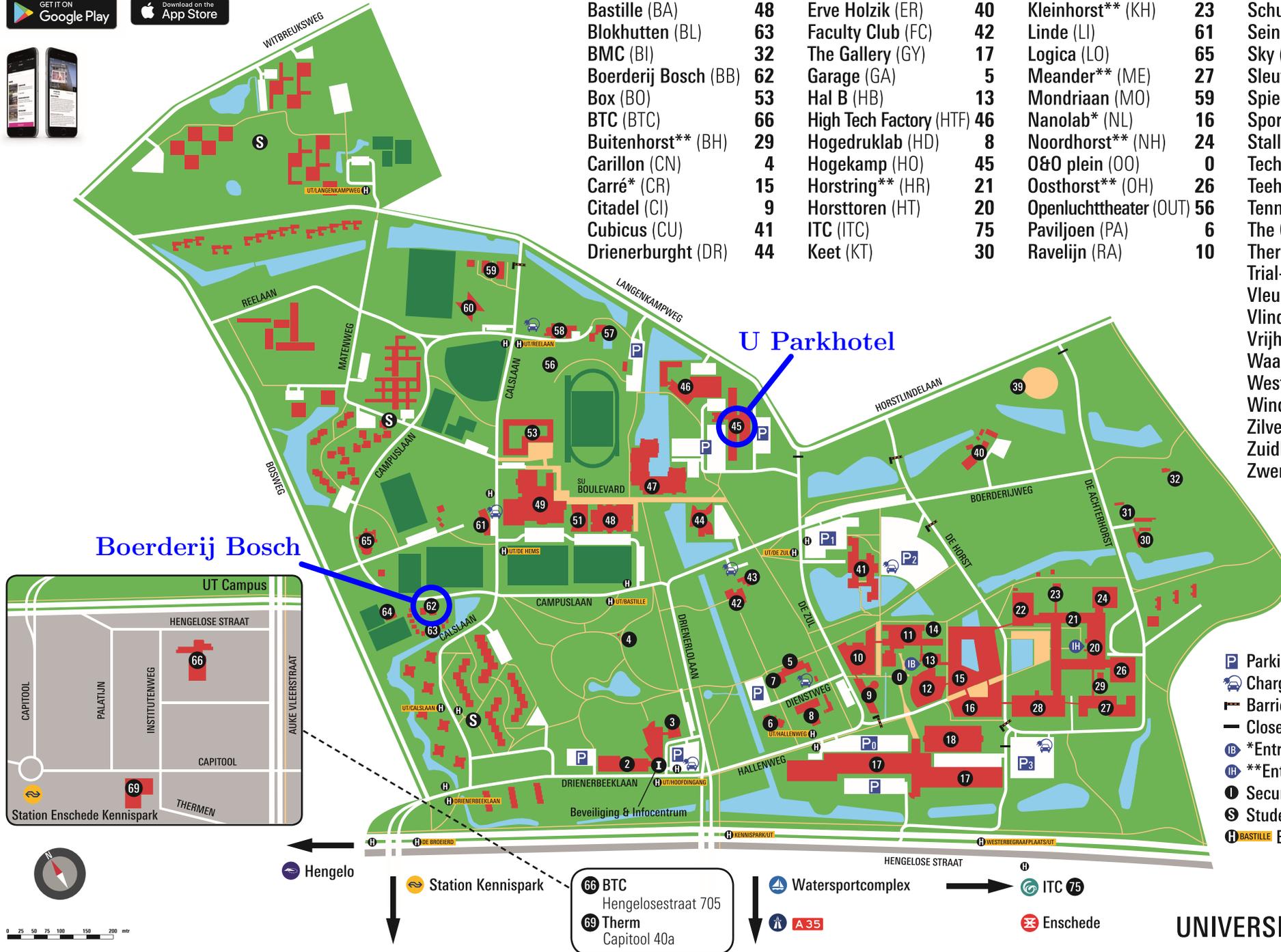
For a 3d-version see [maps.utwente.nl](http://maps.utwente.nl)

OR DOWNLOAD THE **CAMPUS APP!**



# MAP OF THE UNIVERSITY OF TWENTE

Bastille (BA)	48	Erve Holzik (ER)	40	Kleinhorst** (KH)	23	Schuur (SR)	43
Blokhutten (BL)	63	Faculty Club (FC)	42	Linde (LI)	61	Seinhuis (SH)	7
BMC (BI)	32	The Gallery (GY)	17	Logica (LO)	65	Sky (SK)	51
Boerderij Bosch (BB)	62	Garage (GA)	5	Meander** (ME)	27	Sleutel (SL)	58
Box (BO)	53	Hal B (HB)	13	Mondriaan (MO)	59	Spiegel (SP)	2
BTC (BTC)	66	High Tech Factory (HTF)	46	Nanolab* (NL)	16	Sportcentrum (SC)	49
Buitenhorst** (BH)	29	Hogedruklab (HD)	8	Noordhorst** (NH)	24	Stall (ST)	63
Carillon (CN)	4	Hogekamp (HO)	45	O&O plein (OO)	0	Technohal (TL)	18
Carre* (CR)	15	Horstring** (HR)	21	Oosthorst** (OH)	26	Teehuis (TH)	14
Citadel (CI)	9	Horsttoren (HT)	20	Openluchttheater (OUT)	56	Tennispark (TP)	64
Cubicus (CU)	41	ITC (ITC)	75	Paviljoen (PA)	6	The Gallery (GY)	17
Drienerburght (DR)	44	Keet (KT)	30	Ravelijn (RA)	10	Therm (TM)	69
						Trial-terrein (TT)	39
						Vleugel (VL)	3
						Vlinder (VI)	60
						Vrijhof (VR)	47
						Waaier* (WA)	12
						Westhorst** (WH)	22
						Windpark (WP)	31
						Zilverling (ZI)	11
						Zuidhorst** (ZH)	28
						Zwembad (ZW)	57



UNIVERSITY OF TWENTE.