

21st International Conference

CIAA 2016

July 19 ~ 22

Seoul, South Korea



Department of Computer Science,
Yonsei University

Program

July 19, 2016	
08:45-09:00	Registration
09:00-10:00	Invited talk: Bakhadyr Khoussainov (chair Kai Salomaa) <i>Automata over Algebraic Structures</i>
10:00-10:30	Coffee break
<i>Section A</i> (chair Friedrich Otto)	
10:30-11:00	Christos Kapoutsis and Lamana Mulaffer <i>A Logical Characterization of Small 2NFAs</i>
11:00-11:30	Henning Fernau and Andreas Krebs <i>Problems on Finite Automata and the Exponential Time Hypothesis</i>
11:30-12:00	Suna Bensch, Johanna Björklund and Martin Kutrib <i>Deterministic Stack Transducers</i>
12:00-13:30	Lunch break
<i>Section B</i> (chair Stavros Konstantinidis)	
13:30-14:00	Holger Bock Axelsen, Markus Holzer and Martin Kutrib <i>The Degree of Irreversibility in Deterministic Finite Automata</i>
14:00-14:30	Timothy Ng <i>Prefix Distance Between Regular Languages</i>
14:30-15:00	Jorge Calvo-Zaragoza, Colin De La Higuera and Jose Oncina <i>Computing the Expected Edit Distance from a String to a PFA</i>
15:00-15:30	Coffee break
<i>Section C</i> (chair Martin Kutrib)	
15:30-16:00	Jozef Jirasek and Juraj Sebej <i>Kuratowski Algebras Generated by Prefix-Free Languages</i>
16:00-16:30	Markus Teichmann <i>Regular Approximation of Weighted Linear Nondeleting Context-Free</i>

	<i>Tree Languages</i>
16:30-17:00	Akio Fujiyoshi <i>A Practical Algorithm for the Uniform Membership Problem of Labeled Multidigraphs of Tree-Width 2 for Spanning Tree Automata</i>
17:30-	Conference reception Lotus Hall (Sangnam Institute of Management 1F)

July 20, 2016	
08:45-09:00	Registration
09:00-10:00	Invited talk: Oscar H. Ibarra (chair Markus Holzer) <i>Grammatical Characterizations of NPDAs and VPDAs with Counters</i>
10:00-10:30	Coffee break
<i>Section D</i> (chair Bruce Watson)	
10:30-11:00	Shinnosuke Seki and Andrew Winslow <i>The complexity of fixed-height patterned tile self-assembly</i>
11:00-11:30	Martin Sulzmann and Kenny Zhuo Ming Lu <i>Derivative-Based Diagnosis of Regular Expression Ambiguity</i>
11:30-12:00	J. Andres Montoya, Alexander Belovs and Abuzer Yakaryilmaz <i>Looking for the pairs that are hard to separate: A quantum approach</i>
12:00-13:30	Lunch break
<i>Section E</i> (chair Andreas Maletti)	
13:30-14:00	Daniel Prusa <i>Complexity of Sets of Two-dimensional Patterns</i>
14:00-14:30	Stavros Konstantinidis, Casey Meijer, Nelma Moreira and Rogerio Reis <i>Implementation of Code Properties via Transducers</i>
14:30-15:00	Michal Hospodar, Galina Jiraskova and Peter Mlynárčik <i>Nondeterministic Complexity of Operations on Closed and Ideal</i>

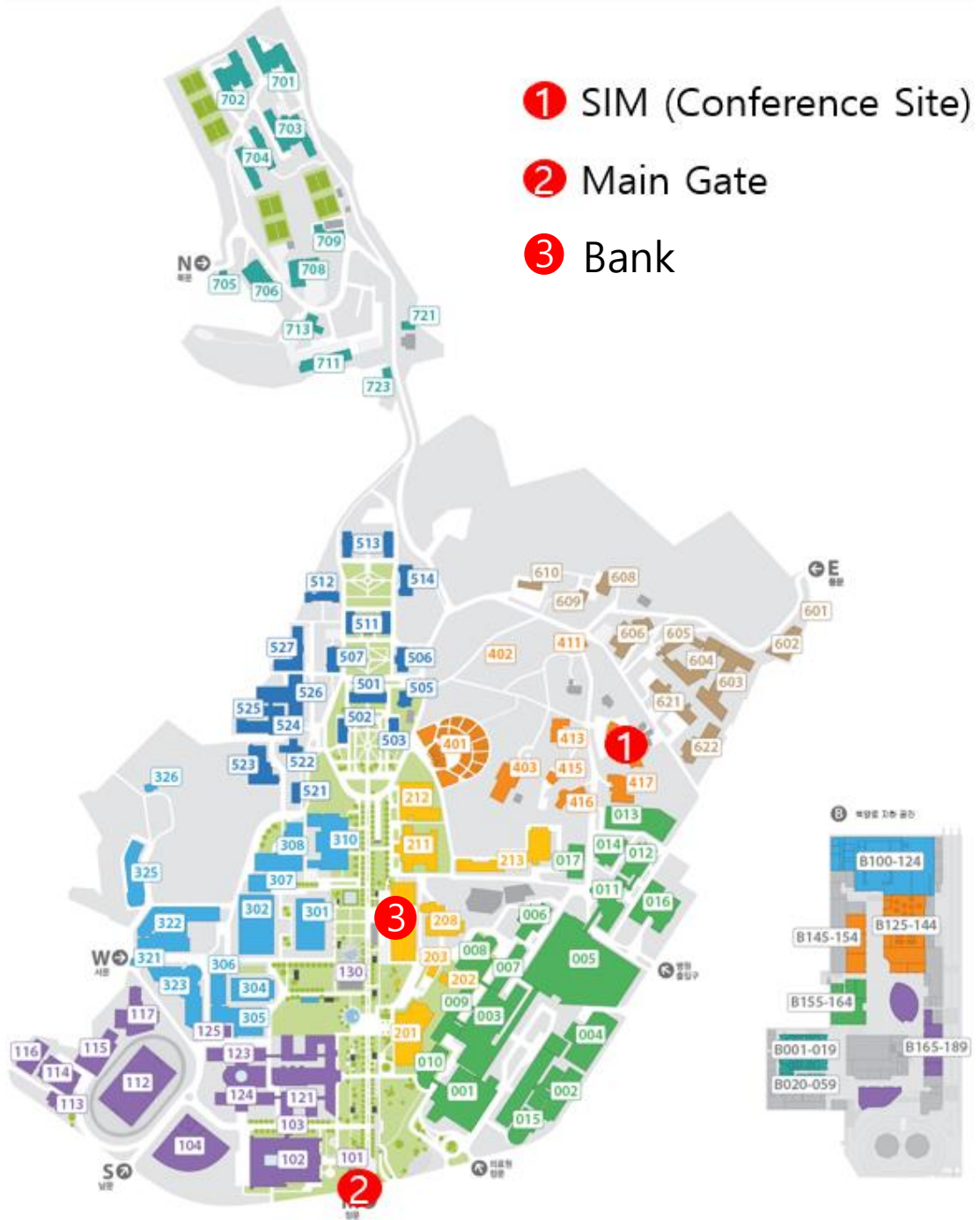
	<i>Languages</i>
15:00-15:30	Coffee break
<i>Section F</i> (chair Johanna Björklund)	
15:30-16:00	Jakub Waszczuk, Agata Savary and Yannick Parmentier <i>Enhancing practical TAG parsing efficiency by capturing redundancy</i>
16:00-16:30	Qichao Wang and Friedrich Otto <i>Weighted Restarting Automata as Language Acceptors</i>
16:30-17:00	Emil Lerner <i>On Synchronizing Automata and Uniform Distribution</i>

July 21, 2016	
08:45-09:00	Registration
09:00-10:00	Invited talk: Ahyoung Sung (chair Yo-Sub Han) <i>What We Experience is What You Do</i>
10:00-10:30	Coffee break
<i>Section G</i> (chair Galina Jiraskova)	
10:30-11:00	Oscar H. Ibarra and Ian McQuillan <i>On Bounded Semilinear Languages, Counter Machines, and Finite-Index ETOL</i>
11:00-11:30	Zoltan Esik <i>Ternary Equational Languages</i>
11:30-12:00	CIAA general meeting
12:00-13:30	Lunch break
13:30-17:30	Excursion to Changdeokgung
18:00-	Conference dinner

July 22, 2016	
08:45-09:00	Registration
<i>Section H</i> (chair Shinnosuke Seki)	
09:00-9:30	Akim Demaille <i>Multitape Rational Expressions</i>
9:30-10:00	Nicolaas Weideman, Brink Van Der Merwe, Martin Berglund and Bruce Watson <i>Analyzing matching time behavior of backtracking regular expression matchers by using ambiguity of NFA</i>
10:00-10:30	Peter Thiemann <i>Derivatives for Enhanced Regular Expressions</i>
10:30-11:00	Coffee break
<i>Section I</i> (chair Brink van der Merwe)	
11:00-11:30	Robert Glück <i>A Practical Simulation Result for Two-Way Pushdown Automata</i>
11:30-12:00	Antonio Di Stasio, Aniello Murano, Giuseppe Perelli and Moshe Vardi <i>Solving Parity Games Using An Automata-Based Algorithm</i>
12:00-12:30	Andrzej Kisielewicz, Jakub Kowalski and Marek Szykuła <i>Experiments with Synchronizing Automata</i>
12:30-13:30	Lunch break

- All talks will be given at Cypress Room (2F, SIM)
- All lunches will be served at Lotus Hall (1F, SIM)

Map in Conference Site



Map for Excursion and Dinner Site



- ① Changdeokgung Palace (Excursion Site)
- ② Seoulgaon (Dinner Site)
- ③ Gwanghwamun Station (Subway Line 5)
- ④ Anguk Station (Subway Line 3)

Address of Sites

1. Conference Site (상남경영원, Sangnam Institute of Management)

Korean Address 서울특별시 서대문구 연세로 50 연세대학교 상남경영원

English Address Yonsei University Sangnam Institute of Management 50,
Yonsei-ro, Seodaemun-gu, Seoul, Korea

2. Excursion Site (창덕궁, Changdeokgung Palace)

Korean Address 서울특별시 종로구 율곡로 99

English Address 99, Yulgok-ro, Jongno-gu, Seoul, Korea

3. Dinner Site (설가온, Seoulgaon)

Korean Address 서울 종로구 세종대로 175

English Address 175, Sejong-daero, Jongno-gu, Seoul, Korea

Lunch Menu (in SIM)

- July 19
 - Multi-grain Rice
 - Bean paste stew with pumpkin
 - Grilled Yellow Croaker
 - 4 side dishes including Kimchi
- July 20
 - Multi-grain Rice
 - Chilled Cucumber Soup
 - Grilled Bulgogi (roast beef)
 - 3 side dishes including Kimchi
- July 21
 - HotStone Pot Bibimbap
 - Clear Soybean Soup with fried tofu
 - 4 side dishes including Kimchi
- July 22
 - Multi-grain Rice
 - Perilla Seeds Soup with Mushrooms
 - 4 side dishes including Kimchi

Conference Reception Menu (July 19, in SIM)

- A Ssin Pizza Lucolras
- Scramble Egg
- Cream Risotto with Shrimp
- Grilled Sausage & Grilled vegetables
- Tomato Sausage
- Corn Soup
- Made Sandwich
- Fried Potato Wedges
- 3 Bread with Butter and Jam
- Mini Cake
- Jalapeno / Pickled Cucumber
- Salad with Lettuce
- Salad with Mango
- Fresh Fruits
- Yogurt
- Coffee

Conference Banquet Menu (July 21, Seoulgaon)

- Traditional Rice Porridge
- Watery Kimchi
- Fresh Salad
- Platter of Seven Delicacies
- Sliced Raw Fish with Abalone
- Assorted Pan-fried Delicacies
- Steamed tofu
- Brass Chafing Dish
- Grilled Beef Ribs
- White Kimchi
- Grilled Toothfish
- Steamed Fish Fillet Dumplings
- Stir-fried Seafood
- Dessert

Activities and Excursions

■ Changdeokgung Palace



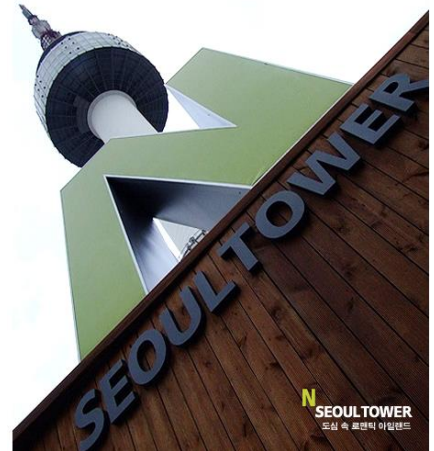
Changdeokgung is a UNESCO World Heritage Site and one of the most well-preserved royal palaces from the Joseon Dynasty founded in 1392 and lasted until 1910. This is where kings and their ministers discussed state affairs to effectively reign over the people, and where the royal family resided.

Changdeokgung Palace was built in 1405 by King Taejong, the third ruler of Joseon. All palaces in Seoul were burnt down during the Japanese Invasion in 1592 and Changdeokgung Palace became the first palace to be rebuilt in 1610. Since then, it became the primary palace for about 270 years where 13 kings including the last monarch dealt with state affairs.

The whole Changdeokgung compound covers an area of about 462,000 square meters (110 acres), and the Rear Garden also known as the Secret Garden accounts for two thirds of the total grounds.

Homepage: http://eng.cdg.go.kr/info/info_about.htm

■ N Seoul Tower



N Seoul Tower was built in 1969 as Korea's first integrated transmission tower beaming television and radio broadcasts across the capital. Since opening to the public in 1980, it has become a much-loved Seoul landmark. The tower's main attractions include multi-colored digital art projected onto the tower at night, a digital observatory, a roof terrace, the HanCook (Korean) restaurant, the n.Grill restaurant, and the Haneul (Sky) Restroom.

N Seoul Tower's mountain surroundings on Namsan (Mt.) have made it a popular place to unwind for locals and tourists alike. Seoul has a number of viewing platforms where visitors can enjoy the nighttime cityscape or gaze out onto the Hangang (River) but the tower's Digital Observatory is unique, offering an astonishing 360 degree panorama over the city, and 32 LCD screens recounting the 600-year history of Seoul. That is why the observatory is so popular and such a source of pride.

Homepage: <http://www.nseoultower.co.kr/eng/index.asp>

■ Namsangol Hanok Village



Namsangol Hanok Village is a collection of five hanoks (traditional Korean houses) from the Joseon Dynasty (1392-1910), recovered from different parts of the city and relocated to the northern foot of Namsan mountain. The interiors of each of these five houses reflect owners from different walks of life, from the middle class to the yangban (who were mainly high government officials, noblemen and aristocrats). At the Hanok village, international visitors can participate in traditional Korean activities such as archery and enjoy traditional Korean performances as well. Anyone who is curious about Korean wedding culture should visit the village on the weekend when the wedding ceremony reenactments take place.

Dining

■ On-campus Dining

1. Student Union Building

Student Union Building is one of the largest dining locations on campus. Newly remodeled dining rooms in the Student Union Building create an inviting atmosphere, where people can enjoy various meals (under 7 USD per meal).

Mat-na-saem (맛나쌈) - Cafeteria

- Food Court with Western food, Bibimbap, Korean noodles, Chinese noodles, and U-don.
- Hours : 08:30 ~ 18:30

Gorul-saem (고를쌈) - Cafeteria and Snack

- Food Court mainly with Italian food (Pizza, Pasta, Lasagna and etc.)
- Snacks with Kimbab, Plain noodles and etc.
- Hours : 09:00 ~ 17:30

Burul-saem (부를쌈) - Cafeteria

- Food Court with Korean, Japanese, Chinese and Western Food
- Hours : 11:30 ~ 18:30

2. Daewoo Hall B1

Sangrok-saem (상록샘)

- Convenience Store and Snacks (Bread, Coffee, Hot dogs and etc.)
- Hours : 09:00 ~ 17:30

3. Widang Hall B1

Chung-kyung Guan (청경관)

- Coffee Café, Convenience Store and Snacks (Kimbab, Sandwich, Spaghetti, and etc.)
- Hours : 09:00 ~ 17:30

4. Hangyeong Hall

- Food Court with Korean and Japanese Food
- Lunch Hours : 11:00 ~ 14:00 (not available on 11:30 ~ 13:30)
- Dinner Hours : 17:00 ~ 19:00

5. New Millennium Hall

- Convenience Store, Yoghurt Café, and Coffee Café
- Western & Korean Food Court
- Homemade Burger and Korean Dish Restaurant

6. Sang-nam Institute of Management 1F (Conference venue)

- Premium Food Court with Korean traditional food
- Hours : Breakfast (07:30 ~ 08:30), Lunch (11:30 ~ 13:30),
Dinner (17:30 ~ 19:30)

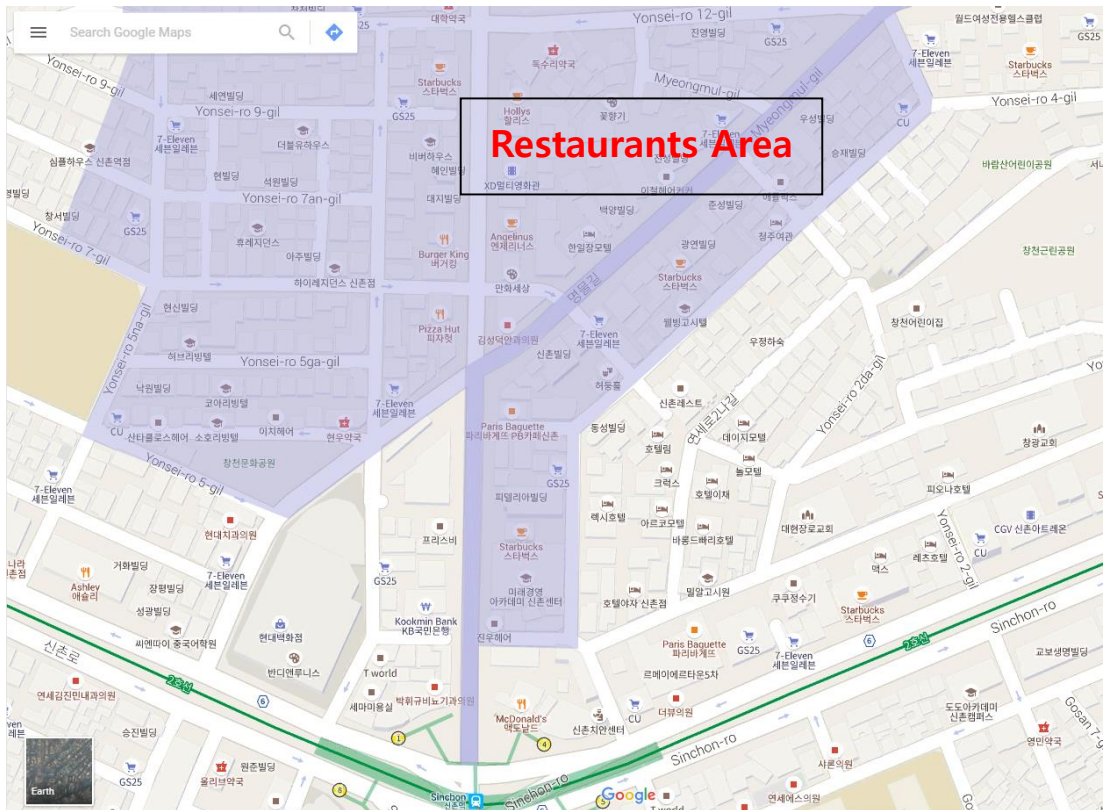
7. Allen Hall

- Food Court with Korean food (Price range from 7,000 KRW ~ 20,000 KRW)
- Hours : 11:30 ~ 13:30



■ Off-campus Dining

From the Sinchon Subway Station to Yonsei University, the numerous side streets and alleys diverge off the main road in many directions, and there is a limitless choice of restaurants, coffee shops, etc. Restaurants are readily available for Western, Japanese, Chinese, Indian, and Korean food. Vegetarian restaurants are also available. Being a university area, there are many great tasting and lowpriced hansik (Korean cuisine) restaurants and makgeolli (traditional rice wine) pubs. Restaurants around the university gates are 10 minute walk away from the conference site. Below are maps and an example list of neighboring restaurants



Neighboring Restaurants (University East Gate)

1. Goodmorning Hanoi (하노이의 아침)

- Vietnamese Rest. (Noodle, Stir-fried Rice)
- 6,000-18,000 (KRW)
- 10:00am – 22:00pm

2. Marie (마리 한정식)

- Korean Rest. (Traditional Korean-style Food)
- 12,000-30,000 (KRW)
- 10:00am – 21:00pm

3. Yeasowon (예소원)

- Korean Rest. (Bulgogi, Beef, Pork, etc.)
- 10,000-33,000 (KRW)
- 11:00am – 21:00pm

4. Ttalgigol Bunsik (딸기골 분식)

- Korean Rest. (Korean-style Soup)
- 3,000-5,000 (KRW)
- 08:00am – 22:00pm

5. Dami (다미 손칼국수)

- Korean Rest. (Korean-style Noodle, Stew)
- 5,500-30,000 (KRW)
- 09:00am – 20:00pm

6. Apgujeong shabushabu (압구정 샤브샤브)

- Japanese Rest. (Shabu-Shabu)
- 11,000-15,000 (KRW)
- 11:00am – 21:00pm

7. Zino (지노)

- Italian Rest. (Pasta, Pizza, Wine)
- 15,000-40,000 (KRW)
- 10:00am – 21:00pm



Pub

1. Western Style

- **Brau Haus** (beer and wine), for the google map link of the route, click [here](#)



- **Gupoom** (beer, draft, cocktail, vodka, whiskey), for the google map link of the route, click [here](#)

- **Bongu beer** (small beer pub), for the google map link of the route, click [here](#)



2. Traditional Korean Style

- “Gamaksae”, for the google map link of the route, click [here](#)



- “Song’s mung bean pancake”, for the google map link of the route, click [here](#)



- “Oh! NUL TONGDAK” (Korean style chicken and beer),
for the google map link of the route, click [here](#)



Simple Translation from English to Korean

1. I want to go to Sangnam Institute of Management at Yonsei University.
(연세대학교 상남경영원으로 가고 싶습니다.)

2. I want to go to the main gate of Yonsei University.
(연세대학교 정문으로 가고 싶습니다.)

3. I want to go to Somerset Palace Seoul.
(서머셋 펠리스 호텔(종로)로 가고 싶습니다.)