ITP 2015 Conference Booklet

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Chapter 1

Pre-Arrival

1.1 Registration and Conference Fee

In short

(1) you need to make a bank transfer for the conference fee in your local currency, and

(2) you need to email Xingyuan with your details (xingyuanzhang at 126 dot com)

Xingyuan will then confirm that the payment has been received. Note that if you are Chinese and need a *fa piao* to reclaim the conference fee, you need to contact Xingyuan directly before making any money transfer.

The early conference fee is RMB 3300, which is approximately £350, $533, or €488. It must be transferred via bank transfer and must be made in your local currency; we cannot accept any other form of payment. The tutorials can be registered independently from the conference.

The conference fee includes lunches during the conference. It also covers the excursion, the conference banquet and a welcome reception.

Early conference fee until 31. July:	RMB 3300
Late conference fee from 1. August:	RMB 3800
Additional banquet dinner and excursion: (one is included in the conference fee)	RMB 530
Isabelle tutorial (21 – 23 August):	RMB 250
Coq tutorial (27 – 29 August):	RMB 200

The amount payable needs to be transferred to the account:

Account holder's name:	Zhang Xingyuan
Beneficiary bank:	BANK OF CHINA
Swift Code:	BKCHCNBJ940
Account number:	504066588897
Beneficiary bank address:	Nanjing Mei Hua Shan Zhuang Sub-branch, Nanjing, China
Account holder's address:	
	Suite 2106, Building 20, 20 Biao Ying, Qinhuai District, Nanjing, Jiangsu Province, People's Republic of China.

Please make doubly-sure that your bank transferral contains your full name as reference (additional information field), and is in your local currency (e.g. €, $, £)! Otherwise we will have no idea where the money came from, and will not be able to receive the money on our end. Please also make sure that your transferral covers all bank fees.

1.2 Hotel Booking

In short, you need to send your arrival and departure details to Chunhan (chunhanwu at 126 dot com).

While it is possible to book the hotel via official online travel web-pages, the price there is higher. The easiest is to send Chunhan your name, arrival and departure dates and he will send you back a booking ticket from Hanyuan hotel, which you might need for your visa application. You can pay the hotel when you arrive using Visa or MasterCard.

1.3 Visa

Please be aware that for travelling to China you will need a visa, for which you have to apply **beforehand**. It often takes one or two weeks before a visa is granted. Though if you are prepared to pay a higher application fee, then you can shorten the delay to a few days. For the visa you will need an invitation letter, which Chunhan will send you (chunhanwu at 126 dot com). You need to provide him with your name, title, DOB, work address, e-mail and paper title (if you present a paper). He will e-mail you the invitation letter. You might also need your hotel booking (see above) and flight details for the visa application.

Chapter 2

Arrival

Welcome in China. You made it to the destination airport. Unless your are one of the very few foreigners who can speak and read Chinese, potentially the most challenging part of your journey is about to begin. Below we explain how to get to Hanyuan Hotel in Nanjing from Nanjing Lukou Airport and from Shanghai Pudong Airport. If you arrive from somewhere else and need help, please let us know. If you need help while travelling, the local organisers can be reached on their mobile:

Xingyuan:	(+86)	13814081536
Chunhan:	(+86)	15312993807

China is generally a safe country for travelling, if the usual precautions are taken. We assume you have never been in China before, therefore let us still start with some general points.

- **Weather** Unfortunately end of August is the time when it will be especially hot in Nanjing (usually above 30°C). Be prepared with lots of light clothes, but do not forget a jumper, or sweater, since many places are air-conditioned. It can also rain.

- **Bottled Water** Whereas in many places it is safe to drink water from taps, do not take chances and drink only bottled water! During the conference we will provide bottled water. In other places you have to buy bottles yourself. Remember, Chinese are famous for nibbling on a bottle of hot tea the whole day, even in sweltering temperatures. There is a reason for this.

- **Traffic** Do not even think of renting a car in China. Hence, while in China, you probably will be mostly going around on foot. Be careful though: You might come from a region where traffic rules are organised so that pedestrians are mostly treated with respect by all other road users, or even have an "elevated status" because they are considered the "weakest". Traffic in China is, in contrast, organised more, shall we say, according to a Darwinian model: Under no circumstance assume a car (or even a bicycle or one of the many noiseless electric motor bikes) will stop for you. As pedestrian, you have to take care of everybody else. Therefore, whenever possible cross roads at traffic lights and even if the light shows green for you, look out for cars that pay no attention to this fact. Also, zebra crossings do *not*, I repeat, *do not*

have any special meaning in China for the road users higher up the traffic ladder (i.e. bicycles and above). Even if it sounds too funny, take our word and heed this advice…it might increase your life-expectancy.

- **Free Public Wifi / Mobile Phones**   While free public wifi is nowadays pretty ubiquitous in big cities in China (Starbucks, Costas, McDonalds are obvious places where to find wifi), you need a working mobile phone in order to use it. You will have to register your number when you log in, and the wifi operator will then send you a password token via SMS. The problem is that chances are great your mobile phone will *not* work in China. Therefore do not assume you can check information on the Internet while travelling.

  At the hotel there will be wifi (with the super-secure password: 123456789). But again, do not assume you can download that last episode of the Daily Show: while bandwidth will generally be enough for reading email, be prepared for an uninterrupted stay in China, free from any disturbance coming from online demands.

- **Google etc**   There are two Great Walls in China: one prevents you from accessing Google, for example. Use `www.aol.com` or `www.bing.com` instead as your preferred search engine. Also, if you care about such things, set your status on Facebook to "unavailable" for the period of time you will be in China. Ditto Twitter. Skype and Facetime, in contrast, work fine. Dropbox, no.

- **Map of Hotel / Taxis**   While more and more young Chinese are exposed to English, you cannot rely on anyone of the general public speaking more than a few words. Rather, you have to always calculate with the very, very likely scenario that nobody speaks any English at all and all signs around you are written in characters that do not give you the slightest idea what they are about. This means you always have to prepare your travelling beforehand and ask us for help if you are unsure!

  One part of *every* trip preparation, including your arrival, should be to carry with you a printed copy of the map where the Hanyuan Hotel is located (see Fig. 2.1). When you want to go to the hotel by taxi, you need to show the map to the driver, since telling Hanyuan Hotel will most probably not be understood and also the driver most likely does not know where it is located. Showing the map will also guard against the possible situation where a taxi driver cannot actually read the address.[1] Take the map always with you: it might be your life-line for avoiding unpleasant situations. For travelling inside Nanjing, taxis can be hailed at the street curb. You need to pay them in cash. They are always metered.

- **Tips in Restaurants, Taxi**   One easy aspect of travelling in China are matters to do with tipping: no tips are expected when paying at a restaurant, for a taxi journey etc. The good thing about this is you are treated as a nice customer, if you are a nice customer (meaning you treat staff with respect).
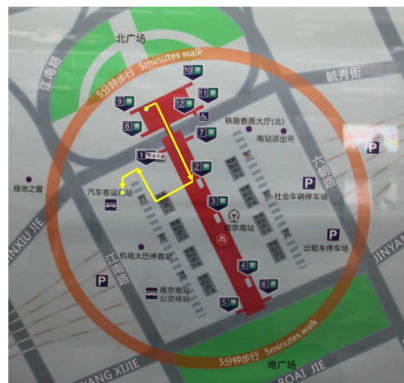
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[1]You might sneer at this. But remember: the prime age of Chinese taxi drivers appears to be 50 plus. If you can also remember, between 1966 and 1976 somebody had the "great" idea to be nasty to teachers (amongst others). So the education these people were able to receive when they were in their teens was rather rudimentary. Given that the ability of reading Chinese characters takes years of arduous studying, it is glaringly obvious that it is not their fault.

- **Cash / Credit Cards** While foreign credit cards are accepted in a number of places, including the hotel,[2] these places are considered "upmarked" in China. So if you insist on being able to use your credit card, you will often be paying some form of premium. Cash still rules many aspects of Chinese life (metro ticket, taxi journey,…) where foreign credit cards are of no use (China has its own credit card system which is accepted more widely, but also not everywhere). Pretty much the only places where cash can be obtained with a foreign credit card are ATMs in Chinese banks. There are several not far from the hotel.

2.1   Travel from Nanjing Lukou Airport to the Hanyuan Hotel

There are essentially three options to travel from the Nanjing Airport to the hotel depending on how frugal or adventurous you want to be :

- The first option is to take a taxi for the whole journey from the airport to the hotel. Follow the taxi signs at the airport and take a yellow taxi. The journey will cost you around 130 RMB (€19, $21) and takes about 45 minutes. Show the driver the map in Fig. 2.1. The taxi needs to be paid in cash.

- A bit less expensive is going first by Metro Line S1 from the airport to Nanjing Nan Railway Station (Nanjing South Railway Station). The metro will operate between 6:40 and 22:00. As you can see in the map shown in Fig. 2.2, Nanjing Nan will be the last stop on Line S1. At Nanjing Nan Railway Station you need to go to the taxi stand, which means leaving the metro via exit 2B and follow the signs for "Taxi (Underground)". The way is marked yellow in the map below. This option takes approximately 55 minutes and costs 7 RMB for the metro ticket and around 36 RMB for the taxi.

- If you already prepared to pay 7 RMBs for the metro, why not adding 2 more and going the whole way by metro? This is the third option. The disadvantage is that you need to change at Nanjing Nan Railway Station to Line 3 and at Daxinggong to Line 2 for Xiamafang or Muxuyuan, which are the closest stations to the Hanyuan Hotel (see Fig. 2.2). Both stations then need a 15 minutes walk to the hotel. This is

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[2]Visa and Mastercard

For the driver:

司机师傅，请将我送到**"童卫路 20 号翰苑宾馆"**，其位置如地图中红色 A 点所示。
酒店电话：02584393962。谢谢！

Figure 2.1: The location of the Hanyuan Hotel. Please print out!

another disadvantage of this option if you have a heavy suitcase. See the map shown in Fig. 3.1 for directions between the metro stations and the hotel.

Getting a Ticket for the Metro in Nanjing

Like most Chinese metro stations, entering the metro station at the airport means you have to go through a brief security check where your luggage will be X-rayed. After the check you will see ticket machines

which can change the language to English (in this way you can avoid having to talk to a sales person in the ticket counter, who might not speak any English). You need to select the destination station on the touch screen (shown on the right). Next you need to pay for the ticket with 10 RMB or 5 RMB bank notes, or 1 RMB coins. If you do not have them yet, you will need to get your ticket from the counter. After paying, the machine will issue a blue plastic chip which is your ticket. This chip needs to be swiped when going through the gates of the metro (shown on the right below). At the end of your journey you will have to return the blue chip at the exit gate.

Figure 2.2: Metro map of Nanjing. Stations Xiamafang and Muxuyuan on Line 2 (red line) are closest to the hotel.

2.2 Travel from Shanghai Pudong Airport

Many of the participants will arrive at Shanghai Pudong Airport. From there, in short, you have to get to (1) the Hong Qiao railway station and then from there to (2) Nanjing Nan railway station. From Nanjing Nan it is best to take a taxi, but you can also take the metro as explained in the previous section. Overall this will take approximately 4h of travelling to the hotel.

From Shanghai Pudong Airport to Hong Qiao Railway Station

For the first leg to Hong Qiao train station there are essentially two travel options: one recommended by locals and being the more sensible option is to take the airport bus; the other is by the World's only commercial Maglev train including a change to the metro.

- **Option 1 by Airport bus**:

    At the Pudong Airport follow the signs for Airport Bus, or Airport Ring Bus. You have to take Line 1, which operates between 7:00 and 23:00. The bus stop where you have to wait is

The waiting time is around 15 minutes during peak hours, or 30 minutes at other times. The ticket costs 30 RMB (€4.25, $5) and can be bought on the bus. This however requires cash. While you wait, be prepared to be harassed by taxi drivers, who insist on driving you to Hong Qiao train station. You can ignore them: it will cost you more, around 100 RMB; the bus is comfortable and air-conditioned, unlike the taxi; and, like the taxi driver, the bus driver appears to aim for maximum possible speed given good road conditions.

The airport bus takes around 1h and makes only two stops at the very end of the journey. Both stops are in near proximity. You have to take the *second* stop at Hong Qiao Railway Station. You will be able to see the big signs of Hong Qiao Railway Station when you approach the station. Do not take the exit for Hong Qiao International Airport.

- **Option 2 Maglev train / Metro**: Of course travelling on the Maglev is pretty cool… reaching speeds of 415 km/h at certain(!) times of the day, namely 9:02–10:47 and 15:02–16:47. At other times it will travel at mere speeds of 300 km/h, which you get in China also with conventional high-speed trains. Anyway, a ticket for the Maglev will set you back around 50 RMB (€7, $8). The ticket can be paid in cash or by credit card. The service of the Maglev starts at 7:02 and finishes the day at 21:42. To take this option at the airport, you will need to follow the Maglev signs. The main problem with this option, however, is that you can only travel until Longyang Road Station and then have to change into the overcrowded and much, much slower metro Line 2. The change to the metro is a short walk from the Maglev. You have to first buy a ticket inside the metro station. The good thing about this option is that metro travelling in Shanghai is pretty easy for foreigners as all stations are signed out in letters. For buying a ticket for the metro, check the section about buying a metro ticket in Nanjing (the procedure is pretty universal in China; the only exception is that in Shanghai the metro ticket is a paper ticket, while in Nanjing it is a blue plastic chip).

  Overall the journey time of this option is around 2h. So unless you really want to sample the feeling of travelling for 7 minutes at 415 km/h, we recommend Option 1 by bus.

From Hong Qiao Train Station to Nanjing Nan via High-Speed Train

The airport bus will stop directly in front of the southern part of the Hong Qiao Railway Station. As background, train stations above the village level in China are organised more like an airport, than the more sleepy train station you might be familiar with. Therefore, you first have to go through a security gate where luggage is checked and you padded by a security guard. The security guard might be of either sex and this is seen as normal by Chinese.

Next you need to buy a train ticket. There are ticket counters, see left below, signed out in the main hall. (Unlike the metro, ticket machines for trains are of no use for you, because you would need a Chinese ID-card in order to buy anything with them.)

You have to queue on the usually longer queue and buy a ticket for Nanjing Nan (Nan stands for South station). You will need to show your passport in order to buy a ticket. The ticket will cost around 135 RMB and looks like this:

The G-Number (G42 above) stands for the train number, which identifies the train also on the large displays at the hall. Below that number is the date and departure time, in this case 2015-08-12 and departure time 10:28. To the right is the coach number (14) and seat number (09C). Just below from that is the sign that the ticket is for second class (二). For the short duration of the trip there is no real need to buy a ticket for first class. On the top right-hand corner is the platform signed out (10A). If not, you have to look at the large display in the hall to get this information.

Next you have to wait for your train on the main concourse of the station. Assuming you have some time, rest for a moment and take in the atmosphere of a typical Chinese train station… definitely busy. Once you know the platform, go to the gate. Be careful, the gates are nestled between shops and can be easily overlooked. For each platform there are two gates labelled 'A' and 'B', respectively. They are on opposite sides of the main hall. 'A' stands for the front of the train and 'B' for the rear – you know which one to go to from the coach number on your ticket. When the gates are opened for your train, you need to show again your passport verifying that it is you who is travelling on the ticket. The journey to Nanjing Nan takes around 1h.

Nanjing Nan Railway Station to the Hanyuan Hotel

Like in the section for travelling from Nanjing Lukou Airport, there are two option you can take from Nanjing Nan. The only difference is that the train station has a different taxi

stand, which is signed out at the station. At the taxi stand you need to take a yellow taxi that goes to "Nanjing Downtown". The taxi will cost around 36 RMB and needs to be paid in cash. Show the driver the map in Fig 2.1.

Chapter 3

Conference

Overview

	Thu 20th	Fri 21st	Sat 22nd	Sun 23rd	Mon 24th	Tue 25th	Wed 26th	Thu 27th	Fri 28th	Sat 29th
		Isabelle tutorial 4th Floor			ITP 6th Floor					
								Coq tutorial 4th Floor		
	Reg. Desk on 1st Floor				Reg. Desk on 6th Floor					
				Reception 18:00		Bu'ss Meeting 17:15	Excursion 12:30			

Our registration desk will be on the 1st Floor next to the hotel's registration desk from Thursday to Sunday. From Monday, we will move the desk to the 6th floor where the conference hall is. The registration desk is open from 9:00 until 17:00, except on Monday 24th when it will be open from 8:15. In case you arrive when our registration desk is closed, you can still check into the hotel simply by showing your passport and refer to ITP 2015. The hotel has a list of everyone who made a booking.

The Welcome Reception on Sunday 18:00 will be on the 1st Floor. Breakfast and lunches are served on the 1st Floor next to the hotel registration desk. The breakfast buffet is open from 7:00 until 9:00. When you check into the hotel, you will receive a green paper ticket for each day, which you have to show before going to breakfast. For lunches you have to show your ITP badge. Hanyuan Hotel also includes a quite good restaurant on the 2nd floor.

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- **Near the Hotel** The Hanyuan hotel is located at the intersection of a big road (Houbiaoying Road 后标营路) and a smaller road (TongWei Road 童卫路). If you need a taxi to go to Downtown Nanjing, for example, it is probably the easiest to hail down a taxi at the big road. An ATM machine is situated a few minutes walk down the smaller TongWei Road. If you want to take a walk in the evening, Xingyuan suggests a stroll through the Purple Mountain Area indicated on the top-right in the map in Fig. 3.1. This area is approximately a 15 minutes walk away from the hotel and contains for example the Sun Yat Sen memorial and the Linggu pagoda (below right).

- **Metro Stations Near the Hotel** There are two metro stations near the hotel (Muxuyan and Xiamafang stations), which are pretty much the same distance from the hotel (see map in Fig 3.1). Muxuyuan is easier to reach: just down TongWei Road and then turn left down the hill of NingHang Road (宁杭公路). The entrance of the metro is on the left-hand side. However it is not the most scenic route. More scenic is the walk to Xiamafang Metro Station through the campus of the Nanjing Agriculture University. Unfortunately the way is not so straightforward. If you are unfamiliar with the way, we suggest you walk to Muxuyuan station; once you followed a local and know the way, go to Xiamafang Station.

- **Shops and Restaurants Near the Hotel** There is a relatively large shopping area close to Xiamafang Metro Station. There is also a wide selection of restaurants in this area including Xingyuan's favourite restaurant for having lunch on workdays. It is called Changjinglu (meaning giraffe) and situated behind the KFC.
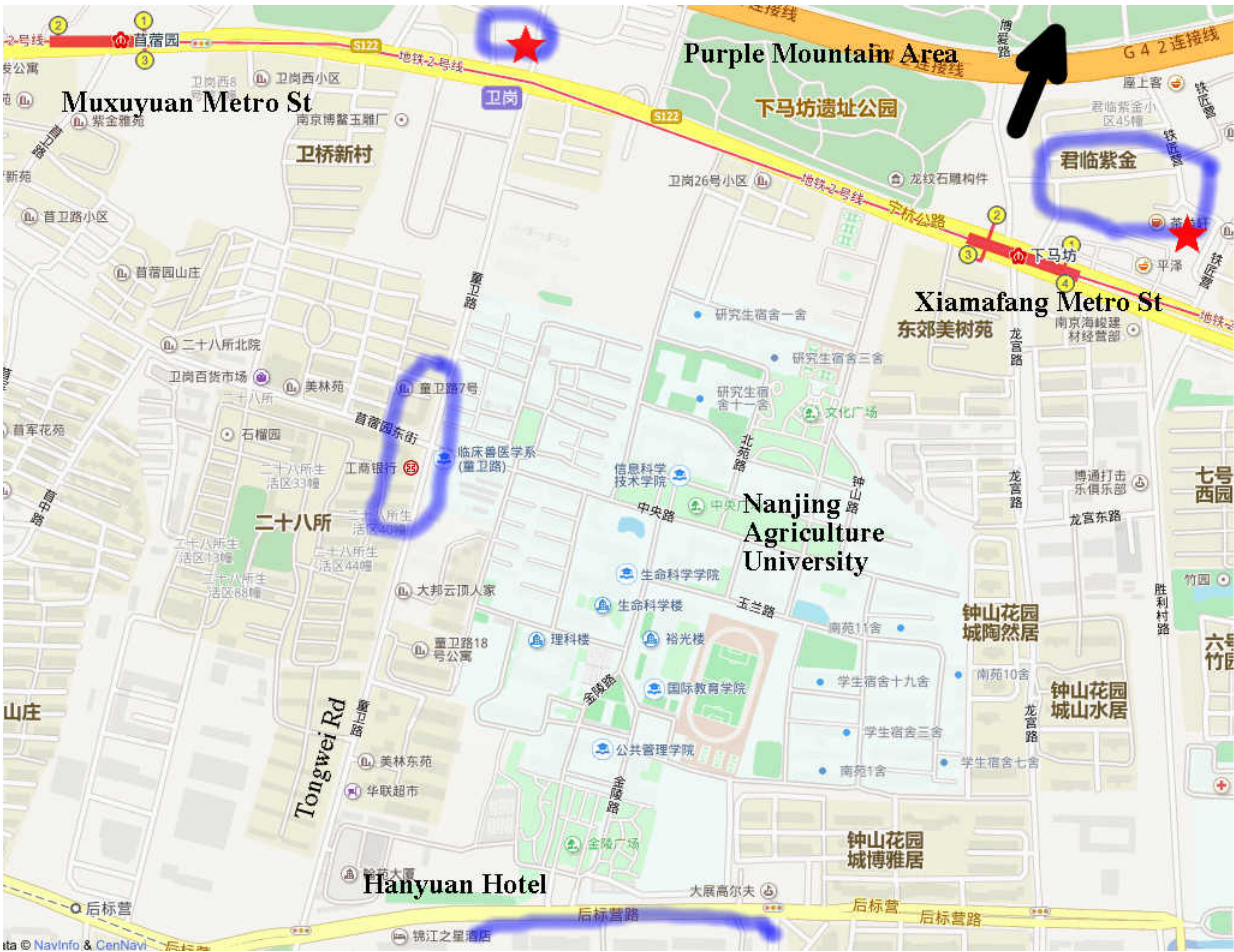
Figure 3.1: Shops and restaurants in the vicinity of the hotel. A relatively large shopping area including a large supermarket (indicated with a red star) is near the Xiamafang metro station. A smaller supermarket is at the end of Tongwei Road. Another shopping area including restaurants are in the middle of Tongwei Road. There are also restaurants on the big Houbiaoying Road.

This area also contains a "Mickey Mouse bakery", which stocks pastries similar to the ones you might find in a Western bakery (just in case you get bored of the baozi at breakfast in the hotel). There is also pizza place in case you must eat something different than Chinese.

There is also a smaller shopping area in the "middle" of Tongwei road including some native restaurants. Some more restaurants are on the opposite side of Houbiao-ying Road.

A smaller supermarket is at the end of Tongwei Road and a bigger one, called Suguo Community Store, in the Xiamafang area. For the latter, go down the steps in front of the KFC.

3.1 Further Afield

If you take the rather cheap and convenient metro, you are very quickly in the downtown area of Nanjing (see metro map in Fig. 2.2 in the previous section).

- **Shopping** The most serious shopping malls in Nanjing are in the area around Xinjiekou and Daxinggong metro stations (on Line 2). Be aware that especially in multi-brand shopping malls the shopping goes like this: (1) You find something you like. (2) You agree the prize with the shop-assistant. (3) You get a piece of paper, which you need to take to a cashier nearby. (4) You pay there, get another piece of paper, which you take back to the shop-assistant, where you finally (5) receive your goods. Another "quirk" of shopping in China is that when the sale says "80% off", for example, it is actually 20% off, meaning you pay only 80% of the original price.

- **Restaurants** The most famous area for restaurants in Nanjing is near the Confucius Temple, which is near the Fuzimiao Metro Station on Line 3. There you can find traditional-style houses and enjoy indigenous foods. There is also a myriad of restaurants in the Xinjiekou area.

- **Sight-Seeing** Nanjing, being a former capital, possessed once one of the most impressive *city walls*. Today you can see remainders at the North Gate near Zhonghuamen Metro Station on Line 1. From the station follow the red line in the map below.

There is also another substantial section of the remaining city wall visible in an area very close to the hotel (you can see it from the hotel if you have a room sufficiently high up): Walk the Houbiaoying Road towards the city centre; once you traversed the river, bear right. You will see a tall wall build of grey stones. At the beginning it is a restored section, but further down the original wall starts (towards the top-end in the map below).

Another scenic spot in Nanjing is the *Xuanwu Lake*, which is dotted with several beautiful small islands and a good place to have a walk. You can reach the lake by going to Xuanwumen Metro Station at Line 1. Xingyuan suggests the walk indicated red below where you end up in from Jimingsi Station on Line 3.

Nanjing Museum is one of the biggest museums in China and definitely worth a visit. For this go to Minggugong Station on Line 2 (Minggugong is only 1 stop away from Muxuyuan; so you could also walk, if you are very enthusiastic). Admission to the museum is from 9:00 untill 16:00 and a visit is free. Some English information about current exhibitions is at http://en.nanjingmuseum.com.

The ultimate bird's-eye view of Nanjing you can have from the *Zifeng Tower*. For this you have to go to Gulou Metro Station on Line 1. Zifeng Tower is just outside the metro station. According to Wiki, Zifeng Tower is the 11th tallest building in the World (to compare, the Shard in London is ranked 92nd and the Sears Tower in Chicago is 12th). A ticket for the observation platform costs 66 RMB.

3.2   Schedule of the Excursion

On Wednesday afternoon there will be the traditional ITP-excursion, this time to a Chinese garden in Yangzhou and to the Slender West Lake. You might like to note a few points:

- The conference session on Wednesday will end at 11:30, and you should finish lunch no later than 12:20 in order to get to the hotel lobby.

- Boarding the shuttle bus is at 12:30 sharp!

- The first leg of the bus journey takes roughly 1.5 hours to Ge Yuan Garden (meaning Bamboo Garden). This is a small garden in traditional Chinese style. We will be there for approximately 1h. You can find a short description at `https://en.wikipedia.org/wiki/Ge_Yuan_Garden`.

- After Ge Yuan, we are going to board the shuttle bus again for the Slender West Lake. We are going to enter the Slender West Lake area from its North Gate. The walking tour at Slender West Lake will be lead by two guides speaking English. Wiki has some rudimentary information at `https://en.wikipedia.org/wiki/Slender_West_Lake`.

- After the walk, we will board boats which will bring us to the South Gate of the lake.

- The banquet restaurant (named Lion Pavilion) is located on the campus of Yangzhou University. It will take us 5 minute walk from the South Gate to get there.

- We expect that the shuttle bus to brings us back starting around 21:30 and we should be back in the hotel by 23:00.

3.3   Restaurants

China is of course famous for its food and restaurants. Below we give an extremely selected list of a few restaurants, in case you feel lost. One point to note, however, is that in China meal times tend to happen earlier than elsewhere: for example if you arrive at a restaurant at 13:00, you are probably still fine for lunch, but arriving at 14:00 pushes the envelop; similarly arriving for dinner at 20:00 at a restaurant is fine, but 21:00 is too late.

Surely you must have been in a Chinese restaurant in your home town; but these restaurants have adapted a bit to Western tastes. Therefore be aware of a few different customs: in many restaurants in China, you, especially if you are in a large group, are expected to order many small dishes, similar to how you would order Tapas, and everybody in the group can then try all dishes. Similarly, the idea of getting for every member of your group a separate bill is *not* supported by the Chinese way of eating out. If I remember correctly, for tax-reasons restaurants have to pay for every bill they hand out and thus under no circumstance will they give several bills…you have to come up with your fellow dining-compadres with a way of how to split the bill amongst yourselves. As mentioned before, tip is not expected.

- **Quanjude / Beijing Duck**   Of course Beijing Roast Duck is not native to Nanjing, but it is still very good anyway: If you want to try it, you should go to the Quanjude restaurant, which is very near the Xinjiekou Metro Station (the entrance of the restaurant is shown on the right).

- **If you are lazy / exhausted, but still want to dine outside of the hotel**…If you feel like going to Hanyuan's own restaurant means you have not been adventurous enough to see the "outside" world, you can be a tad more adventurous by going to the ??? restaurant. This restaurant is less than 5 minutes walk away on TongWei Road. It is a relative quiet restaurant and has comfortable seats. The menu is in Chinese only, but it contains lots of pictures (se below left). The restaurant is located on the "middle" corner of TongWei Road (its entrance is shown on the right). You have to go to the 2nd Floor.

???

In case you need it, the wifi-password in this restaurant is ???

The organising team wishes you a pleasant stay in Nanjing! If you need any help, please contact us.

Chunhan Wu   Xingyuan Zhang   Christian Urban

Monday (6th Floor)

9:00 – 10:00 (chairs: X. Zhang, C. Urban)

Short Intro Session

M. Moscato, C. Munoz, A. Smith
Affine Arithmetic and Applications to Real-Number Proving

20 mins coffee break

10:20 – 11:10 (chair: T. Nipkow)

J. Hölzl, A. Lochbihler, D. Traytel
A Formalized Hierarchy of Probabilistic System Types (Proof Pearl)

F. Immler
A Verified Enclosure for the Lorenz Attractor (Rough Diamond)

20 mins coffee break

11:30 – 12:30 (chair: R. Thiemann)

A. Anand, R. Knepper
ROSCoq: Robots Powered by Constructive Reals

H. Chan, M. Norrish
Mechanisation of AKS Algorithm: Part 1 – the Main Theorem

2hs lunch break

14:30 – 15:30 (chair: R. Kumar)

S. Schneider, G. Smolka, S. Hack
A First-Order Functional Intermediate Language for Verified Compilers

A. Fox
Improved Tool Support for Machine-Code Decompilation in HOL4

30 mins coffee break

16:00 – 17:00 (chair: H. Herbelin)

F. Besson, S. Blazy, P. Wilke
A Concrete Memory Model for CompCert

T. Tuerk, M. Myreen, R. Kumar
Pattern Matches in HOL: A New Representation and Improved Code Generation

Tuesday (6th Floor)

9:00 – 10:00 (chair: M. Norrish)

A. Charguéraud, F. Pottier
Machine-Checked Verification of the Correctness and Amortized Complexity of an Efficient Union-Find Implementation

T. Nipkow
Amortized Complexity Verified

20 mins coffee break

10:20 – 11:10 (chair: J. Urban)

S. Blazy, D. Demange, D. Pichardie
Validating Dominator Trees for a Fast, Verified Dominance Test

A. Lochbihler, A. Maximova
Stream Fusion for Isabelle's Code Generator (Rough Diamond)

20 mins coffee break

11:30 – 12:30 (chair: X. Zhang)

L. Birkedal
Invited Talk

2hs lunch break

14:30 – 15:30 (chair: A. Fox)

M. Abdulaziz, M. Norrish, C. Gretton
Verified Over-Approximation of the Diameters of Propositionally Factored Transition Systems

T. Prathamesh
Formalizing Knot Theory in Isabelle/HOL

30 mins coffee break

16:00 – 17:00 (chair: S. Blazy)

S. Schäfer, T. Tebbi, G. Smolka
Autosubst: Reasoning with de Bruijn Terms and Parallel Substitutions

P. Maksimovic, A. Schmitt
HOCore in Coq

short coffee break

17:15 – 18:00

ITP Business Meeting

Wednesday (6th Floor)

9:00 – 10:00 (chair: A. Charguéraud)

R. Spadotti
A Mechanized Theory of Regular Trees in Dependent Type Theory

G. Smolka, S. Schäfer, C. Doczkal
Transfinite Constructions in Classical Type Theory

30 mins coffee break

10:30 – 11:30 (chair: C. Urban)
M. Norrish
Invited Talk

1h lunch break

12:30 – 22:30

Excursion to Ge Yuan Garden and Slender West Lake

The bus departs at 12:30 sharp from the hotel.

Dinner will be at the Lion Pavilion restaurant which is close to the Slender West Lake.

We expect to be back at the hotel around 22:30.

Thursday (6th Floor)

9:00 – 10:00 (chair: G. Smolka)

B. Fallenstein, R. Kumar
Proof-Producing Reflection for HOL, with an Application to Model Polymorphism

O. Kunčar, A. Popescu
A Consistent Foundation for Isabelle/HOL

20 mins coffee break

10:20 – 11:10 (chair: TBD)

Z. Paraskevopoulou et al
Foundational Property-Based Testing

C. Kaliszyk, J. Urban, J. Vyskocil
Learning To Parse on Aligned Corpora (Rough Diamond)

20 mins coffee break

11:30 – 12:30 (chair: TBD)

F. Sieczkowski, A. Bizjak, L. Birkedal
ModuRes: A Coq Library for Modular Reasoning about Concurrent Higher-Order Imperative Programming Languages

S. Boulmé, A. Maréchal
Refinement to Certify Abstract Interpretations, Illustrated on Linearization for Polyhedra

2hs lunch break

14:30 – 15:30 (chair: C. Wu)

C. Sternagel, R. Thiemann
Deriving Comparators and Show-Functions in Isabelle/HOL

R. Affeldt, J. Garrigue
Formalization of Error-Correcting Codes: from Hamming to Modern Coding Theory

30 mins coffee break

16:00 – 17:00 (chair: TBD)

P. Lammich
Refinement to Imperative/HOL

B. Barras, C. Tankink, E. Tassi
Asynchronous Processing of Coq Documents: from the Kernel up to the User Interface

short coffee break

17:15 – 17:45 (chair: TBD)

L. Cruz-Filipe, P. Schneider-Kamp
Formalizing Size-Optimal Sorting Networks: Extracting a Certified Proof Checker