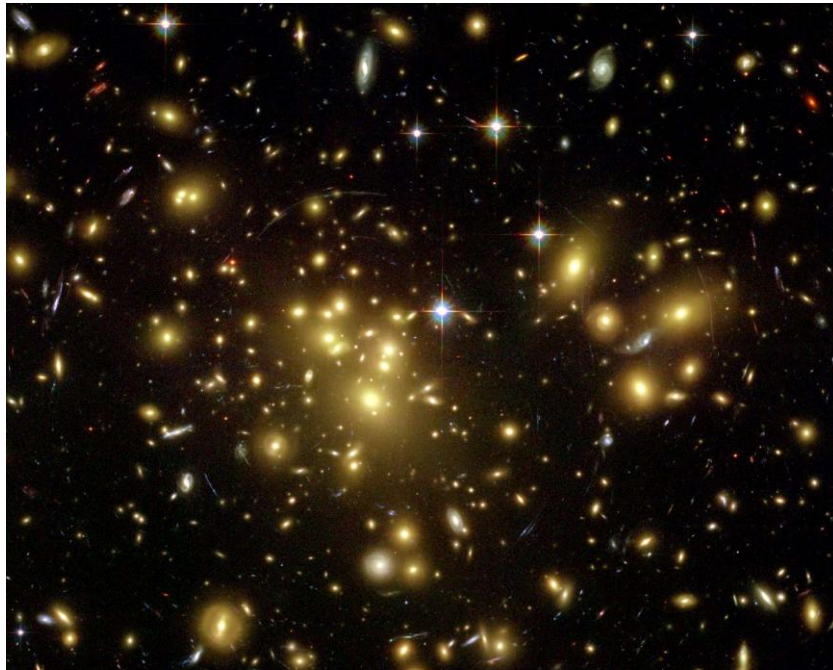


# Clusters of Galaxies as Cosmic Laboratories



**The Oskar Klein Centre for Cosmoparticle Physics**

**Stockholm University, AlbaNova University Centre**

**12-14 September 2011**

**Organizing committee:**

Lars Bergström, Jan Conrad, Ariel Goobar, Greg Madejski, Anders Pinzke, Martin Sahlén

Supported by STINT and the Oskar Klein Centre

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# SCIENTIFIC PROGRAMME

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## ROOM

The workshop takes place in room **FD51** in the AlbaNova main building (the long, curved white building). Follow signs from the main entrance (across the small bridge into the towerlike entrance with a dome at the top). A reception is located to the left after the entrance if you want assistance.

## TIMETABLE – PROGRAMME

See separate attachment.

## PRESENTATION ARRANGEMENTS

- We ask that you speak for approximately 30 min, leaving 15 min for questions and discussion.
- A PC and Mac able to show Powerpoint and PDF slides will be available, although you may use your own computer as well.
- If you wish to use the workshop computers, please ensure you provide your talk to the organizers well in advance of your slot via USB memory or e-mail to [msa@fysik.su.se](mailto:msa@fysik.su.se)
- A laser pointer that can also be used as a slide clicker will be available
- Presenters' slides will be collected via USB memory or otherwise and posted on the workshop web page. Please inform the organizers if you do not wish for your slides to be posted or wish to provide a modified version.

# PRACTICAL INFORMATION

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## CONTACT INFORMATION

The workshop organizers can be reached on the following phone numbers, should you need assistance with something.

Ariel Goobar +46 739 845465

Anders Pinzke +46 739 293066

Martin Sahlén +46 761 844240

## WEB PAGE

<http://agenda.albanova.se/conferenceDisplay.py?confId=2988>

## INTERNET CONNECTION

Wireless internet access is available at the AlbaNova campus, either using personal accounts distributed with the workshop information folder (credit-card size access information) on the network "SU", or using the international roaming on "eduroam". The eduroam network uses WPA2-Enterprise security with AES encryption and PEAP authentication.

## TRAVEL & TRANSPORTATION INFORMATION

The workshop will be held at the **AlbaNova University Centre** in Stockholm. Stockholm is served by both the main airport Arlanda and a few smaller airports (Bromma Airport - near the city centre, Skavsta Airport - further away and mainly low-cost airlines, Västerås Airport - again further away and low-cost).

### Boarding Pass Printing

If you need assistance printing your boarding pass, please send an e-mail well in advance to [msa@fysik.su.se](mailto:msa@fysik.su.se) including a PDF (or other file format) containing the boarding pass to be printed.

### Arlanda Airport (ARN)

To get to downtown Stockholm from Arlanda, you have several options:

- **Arlanda Express.** The fastest option is to take the *Arlanda Express train* (240 SEK one-way) to Stockholm Central Station (~20 min). Stockholm C is also the hub for the public transport system in Stockholm, including the subway.
- **Airport Bus (Flygbussarna).** Another option is to take the airport bus which will also take you to the central station, albeit rather slower. If you want to go directly to the workshop site AlbaNova, you can also get off the bus at Haga Forum and walk (10-15 min) to the workshop site. The airport bus is 119 SEK one-way and 219 SEK return.
- **Taxi.** The easiest, but most expensive, option is of course to take a taxi directly to your hotel (or the workshop site AlbaNova). All taxi companies serving Stockholm are supposed to have fixed prices (around 500 SEK) to downtown Stockholm. If you go directly to the workshop site AlbaNova, state that you want to go to 'AlbaNova University Center, Roslagstullsbacken 21'.

## Bromma Airport (BMA)

Airport bus or taxi similar to directions for Arlanda Airport. This airport is much closer to the city so prices are somewhat lower.

## Skavsta Airport (NYO)

If instead you arrive at Skavsta Airport, there is a bus service (**Flygbussarna**) that will take you to Stockholm City. The price is 99 SEK one-way and 178 SEK return. These buses run frequently daytime, but after 7 pm, they run only when flights land (and wait for delayed flights). As Skavsta is much further away than Arlanda, taxi is not recommended from this airport.

## Västerås Airport (VST)

For Västerås Airport, there is again a bus service (**Flygbussarna**) that will take you to and from Stockholm City in conjunction with flights. The price is 99 SEK one-way and 179 SEK return. Again, taxi to Stockholm is only recommended for people with too much money, however, it is possible to take a taxi to the local train station Västerås C (**Taxi Västerås**) and then go by train to Stockholm (**SJ**).

## Getting around in Stockholm

Stockholm is served by a good subway and bus system. The main hub of the subway system is T-centralen located right next to Stockholm Central Station. All subway lines pass through this hub. There are also many buses stopping here that serve other areas of Stockholm. Note that most points of interest in Stockholm are not that far apart, so if you don't mind walking, that is also an excellent option for getting around.

To use the subway or bus, you **should** buy a ticket **in advance**. This is done either using a ticket machine at the station/bus stop, or at larger service centers (SL-Center) or at convenience stores like Pressbyrå or 7-Eleven. For short duration stays your ticket options are:

- single tickets for 40 SEK (two coupons) if bought at the entrance to the subway (not possible on buses).
- single tickets for 30 SEK (two coupons) if bought in advance at any of the places mentioned above.
- a strip with 16 coupons valid for 8 trips (2 coupons are required per trip) for 180 SEK.
- pay via your mobile phone by sending an SMS with the text 'HA' to 72150. You will then get a return SMS that is your ticket (show to bus driver or at subway entrance). This ticket costs 30 SEK (charged to your mobile phone).
- 7-day pass for 260 SEK (unlimited travel for 7 days).
- 3-day pass for 200 SEK (unlimited travel for 3 days/72 hours).
- 1-day pass for 100 SEK (unlimited travel for 24 hours).

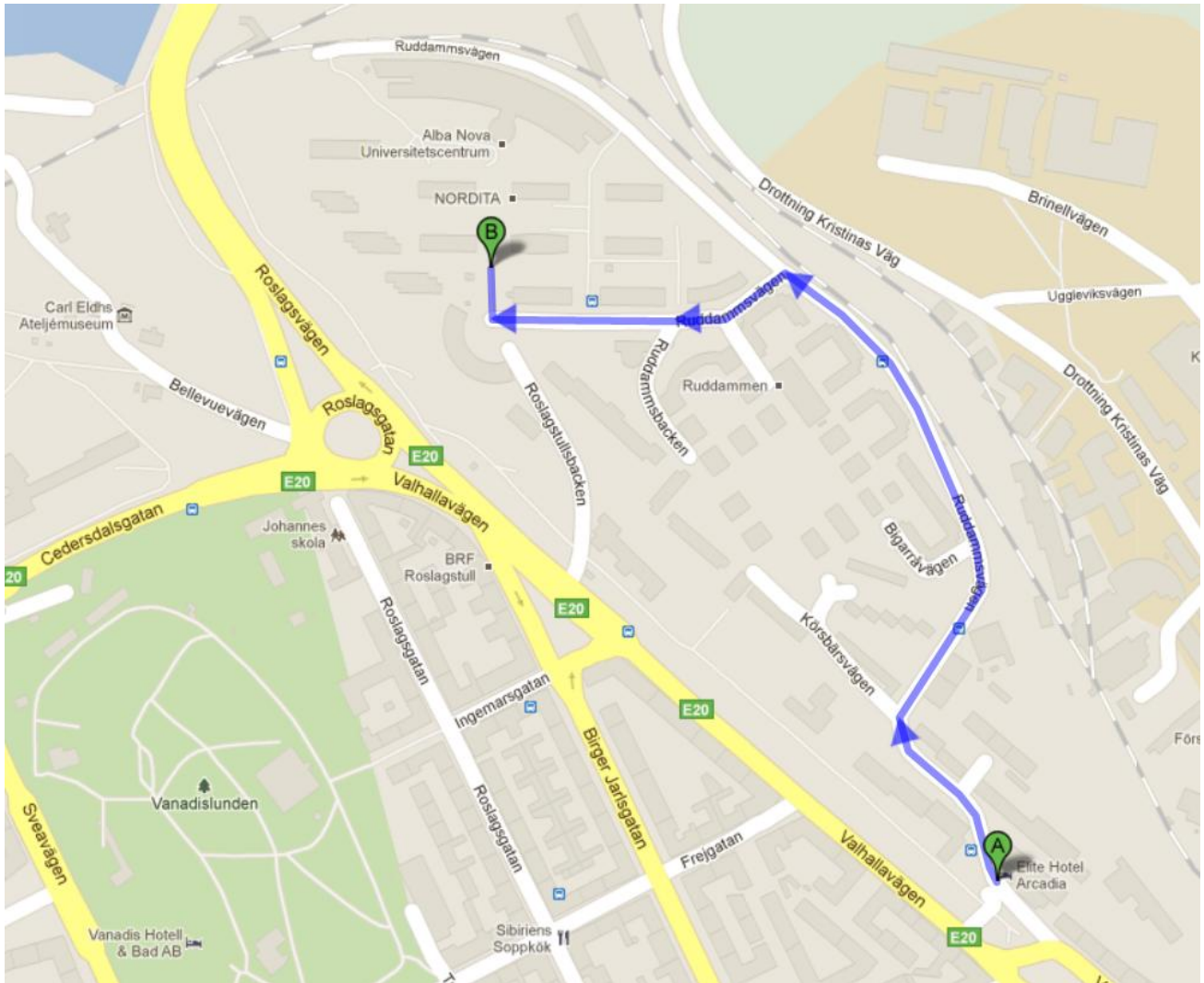
If you plan on using the public transportation a lot during your stay, we recommend that you either buy the 3- or 7-day pass, or the strip with 16 coupons.

Taxis can be ordered by phone from Taxi Stockholm, phone 08-15 00 00, which is one of the most reputable companies. Taxis generally accept card payments. Please ask the organizers for assistance if you wish to order a taxi.

## Finding the workshop site, AlbaNova

The workshop is held at AlbaNova University Center, Roslagstullsbacken 21.

If you stay at Hotel Arcadia, the workshop site is easily reached on foot (~5 min). Just go up the hill on Körnbärsvägen and continue straight through the residential area. You will find AlbaNova at the other side of the hill. An alternative route which is a bit longer but less steep is marked on the map below.

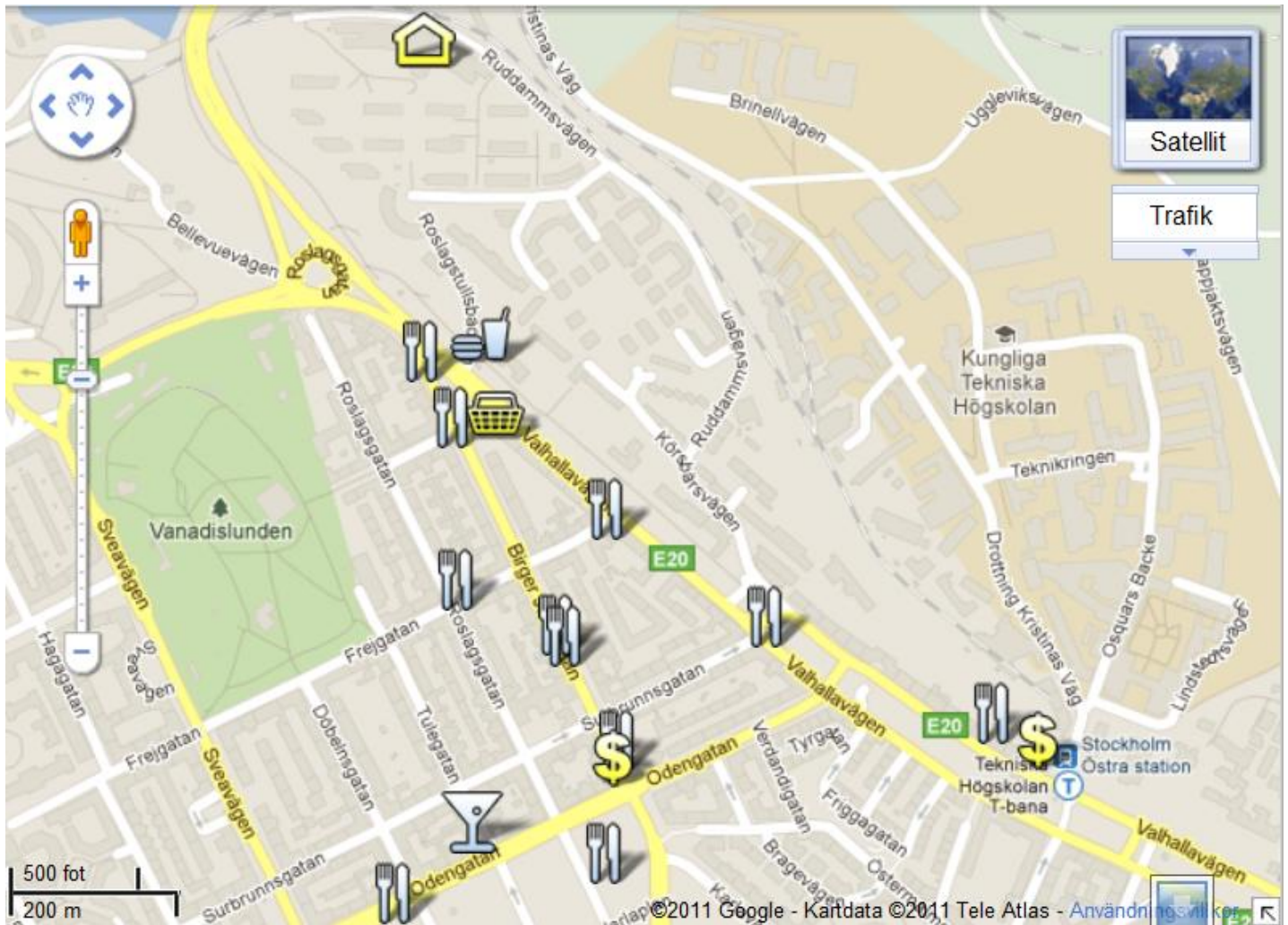


If you stay at Hotel Oden or Best Western Time Hotel, you can either walk (~20 min), or take bus number 40 or 70 to the bus stop *Albano*. AlbaNova is the big white building behind you (with a telescope dome on top of it).

If you stay elsewhere, or simply want more travel information, the public transportation company SL, has a journey planner at [www.sl.se](http://www.sl.se) to help you find your way. Note that the bus stop closest to AlbaNova is called *Ruddammen*, the *Albano* stop is also fairly close.



## NEARBY RESTAURANTS



This map can also be accessed online from the workshop web page, with information on names and cuisines.

# SOCIAL EVENTS

## WORKSHOP DINNER, MONDAY 12 SEPT 18:30

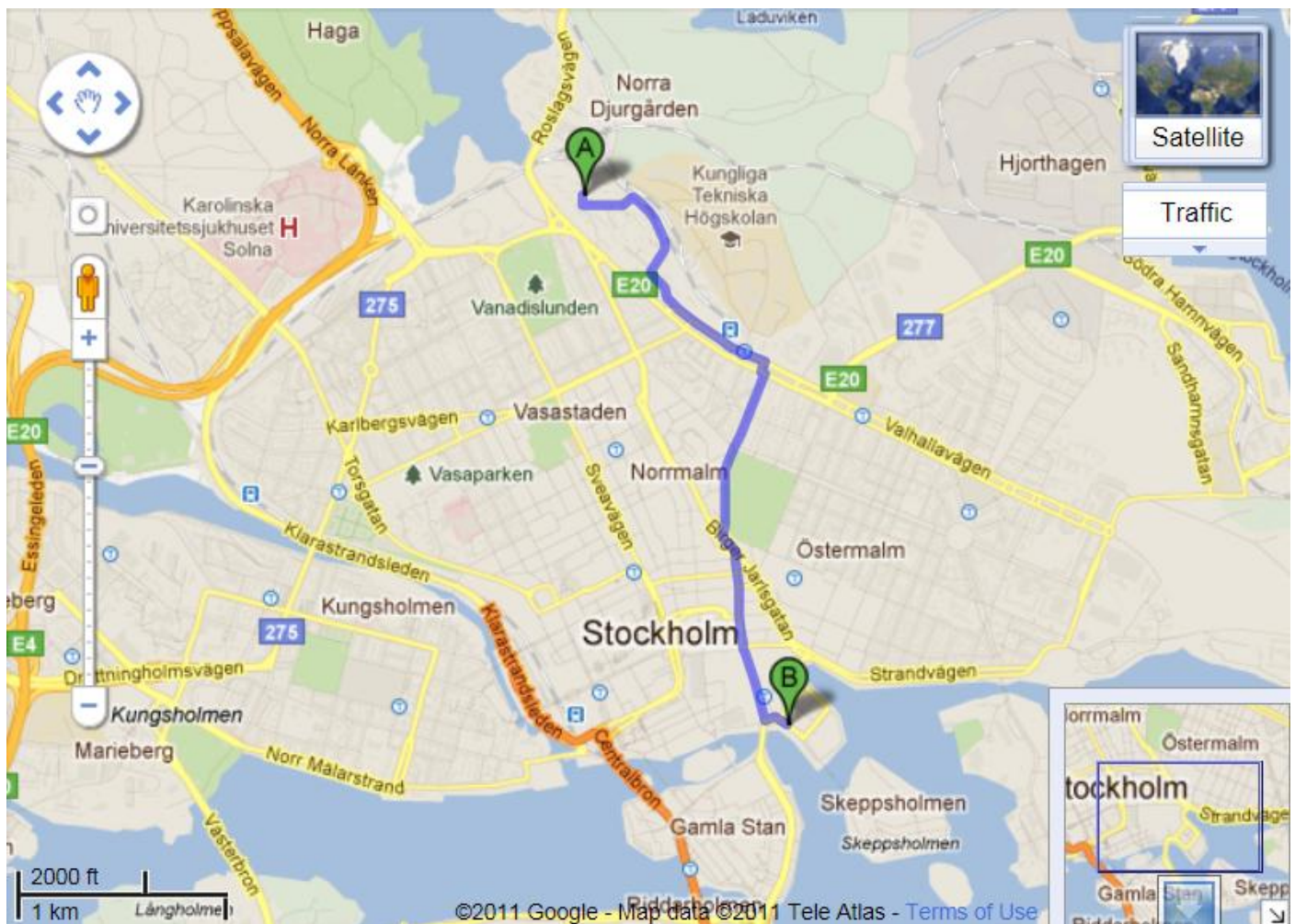
Swedish smörgåsbord at Verandan Restaurant, Grand Hotel,  
S. Blasieholmshamnen 8, 103 27 Stockholm

Meal covered by workshop, but drinks to be covered by participants.



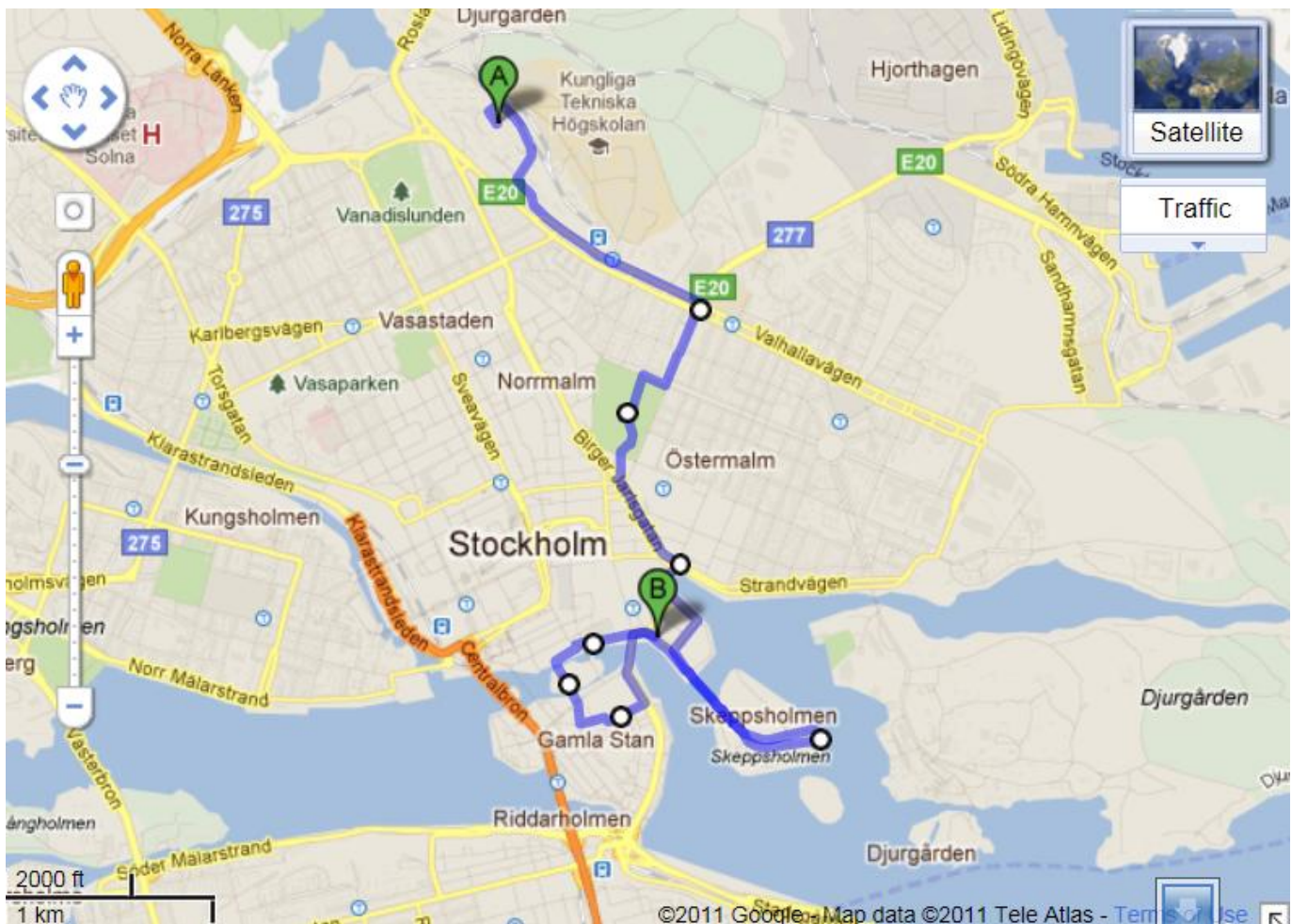
## GETTING THERE

1. Walking (about 3.5 km, 40 min – 1 h or longer with scenic route)



Quickest route.





Scenic route options for walking, including one loop around the parliament, royal palace and old town (left) and the old navy shipyard island (right) now housing museums and cultural institutions. Estimate around 20-30 min for each of the loops.

## 2. Taxi (about 10 min)

Shared taxis will be pre-booked, please sign up on sheets provided **BEFORE 14:00**.

There will be one sheet for those wishing to depart from AlbaNova, and one for those wishing to depart from the Elite Hotel Arcadia.

Departure time will be approximately 18:10. The estimated cost is 160 SEK, shared by three or four.

## 3. Public transport (about 15 min)

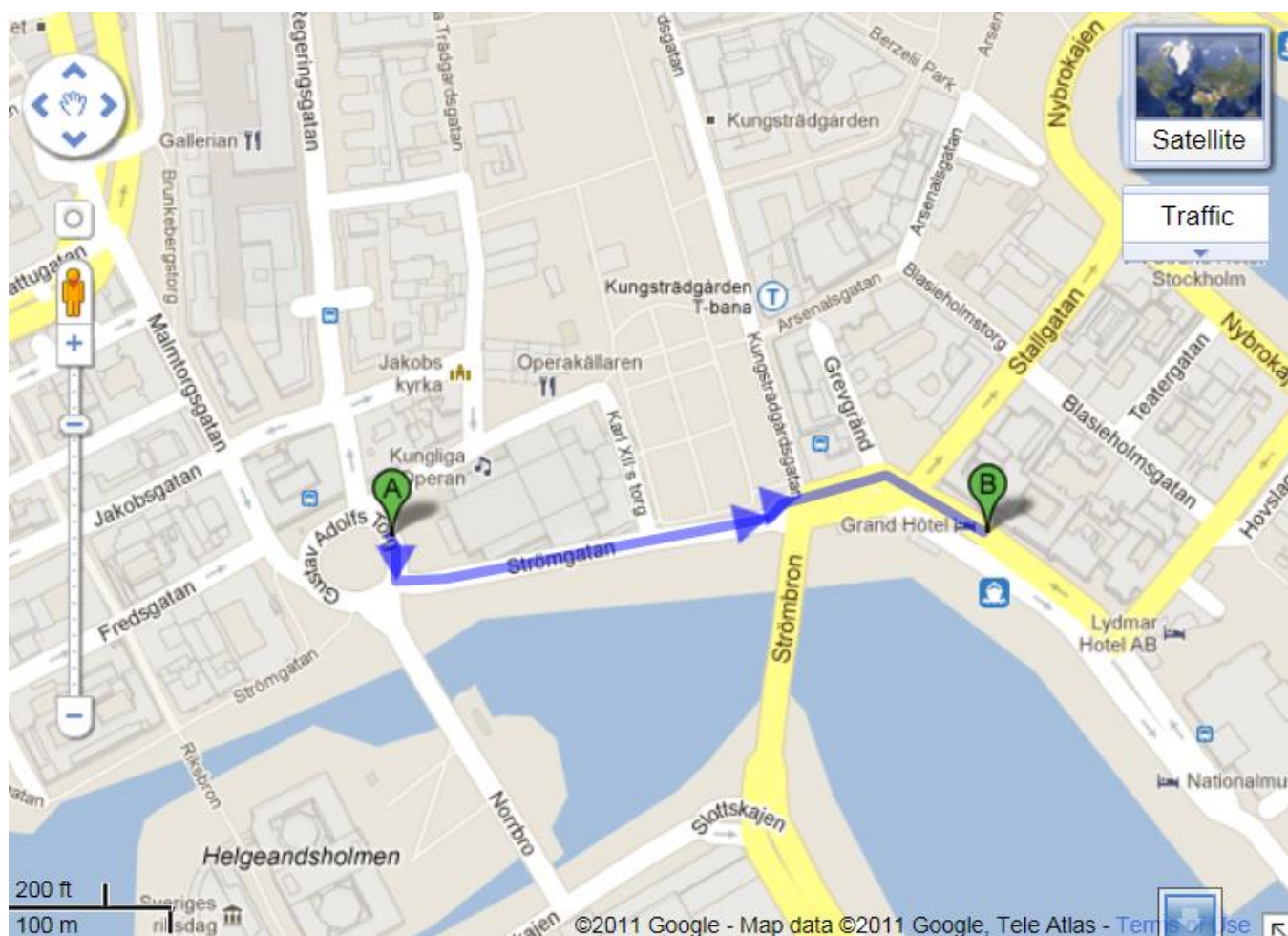
NB! Tickets can NOT be bought on the bus, but need to be purchased in advance from Pressbyrån or 7-Eleven newsagents or ticket offices in underground stations. See further the Travel & Transportation information.

Bus 43 (towards Tanto) from Ruddammen (at AlbaNova) or Körsbärsvägen (outside Elite Hotel Arcadia), getting off at Gustav Adolfs Torg. Walk down to Grand Hotel (350 m). Map below.

Departure Ruddammen 17:44 (Körsbärsvägen 17:47), arrives Gustav Adolfs Torg 18:01.

Departure Ruddammen 17:59 (Körsbärsvägen 18:02), arrives Gustav Adolfs Torg 18:14.

Departure Ruddammen 18:14 (Körsbärsvägen 18:17), arrives Gustav Adolfs Torg 18:29.



Route from bus stop to workshop dinner at Grand Hotel.

## RECEPTION, TUESDAY 13 SEPT 18:15

An informal wine and cheese reception (non-alcoholic options also available) will be held on Tuesday evening 13 September 18:15, adjacent to the workshop venue.

# PARTICIPANTS

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