



# XXXI<sup>st</sup> International Conference on High Energy Physics (ICHEP 2002)

July 24 - 31, 2002, Amsterdam, The Netherlands

## 1<sup>st</sup> Bulletin

ICHEP 2002 continues the tradition of the 'Rochester Conferences' which started in 1950. The conference is organized by NIKHEF, the National Institute for Nuclear Physics and High-Energy Physics, under the auspices of IUPAP, the International Union of Pure and Applied Physics. Chairman of the conference is Ger van Middelkoop. The conference will be held at the RAI Congress Centre, located just outside the historic center of Amsterdam.

### Conference Secretariat

Eurocongres Conference Management/ICHEP02

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### Conference Web Site

[www.ichep02.nl](http://www.ichep02.nl)

## 2<sup>nd</sup> Bulletin

In June an updated bulletin with more detailed information will be placed on the ICHEP 2002 web site only.

### Participation

As in previous conferences of the Rochester series, participation is by invitation only. In accordance with the IUPAP guidelines, invitations are extended by the organizers to scientists nominated by the IUPAP country coordinators. A list of the coordinators can be found on the ICHEP 2002 web site. Every attempt will be made by the organizers to accommodate all qualified scientists at this conference.

## International Advisory Committee

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## Local Organizing Committee

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## Scientific Sponsors

International Union of Pure and Applied Physics (IUPAP)  
National Institute for Nuclear Physics and High Energy Physics (NIKHEF)  
Foundation for Fundamental Research on Matter (FOM)  
Netherlands' Organization for Scientific Research (NWO)  
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Foundation for High Energy Physics of The Netherlands  
Netherlands' Foundation for Nuclear Physics Conferences and Summerschools  
Nuclear Physics Accelerator Institute (KVI)  
University of Amsterdam  
Free University Amsterdam  
University of Leiden  
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## IUPAP sponsorship

To secure IUPAP sponsorship, the organizers have provided assurance that ICHEP 2002 will be conducted in accordance with IUPAP principles as stated in the ICSU Document *Universality of Science* (6th edition, 1989) regarding the free circulation of scientists for international purposes. In particular, no *bona fide* scientists will be excluded from participation on the grounds of national origin, nationality, or political considerations unrelated to science.

## Registration

Starting on March 1, 2002 invited scientists are asked to register via the ICHEP 2002 web site. The pages for registration are protected by a user identification and password which is sent by email to those invited. Upon registering you will be asked to choose a personal password. Please use this personal password for any further communication with Eurocongres, the conference secretariat.

Late registration is also possible at the conference, starting on July 24th at 17:00 hrs in the RAI Congress Centre.

## Fee

*Early registration fee:* The conference fee is EUR 375 if registration is completed and payment received not later than April 30, 2002.

*Late registration fee:* Starting May 1, a fee of EUR 425 will be charged.

The fee includes: access to all scientific sessions, coffee and tea during breaks, conference bag and materials, proceedings, welcome reception, and concert; lunches are not included. Instructions for payment of the fee can be found on the registration web pages. No cheques are accepted.

## Accompanying Persons

Accompanying persons of participants will find Amsterdam with its historical center, famous museums and many nearby attractions an interesting place to visit. While the city invites to be explored on one's own, a list of recommended excursions and activities has been selected by the organizers (see below).

Accompanying persons can be registered together with a participant. The fee per accompanying person is EUR 55 and includes refreshments during registration, the welcome reception, the accompanying persons excursion on Thursday July 25 and the concert.

## Cancellation and Refunds

The Conference Secretariat should be notified in writing of cancellations.

*Cancellations before May 15, 2002:* refund of fee minus EUR 50.

*Cancellations from May 15 to June 15, 2002:* refund of 50% of the full registration fee.

*Cancellations after June 15, 2002:* no refund.

## Financial Support

There are limited resources for financial support for participants. These funds are made available among others by IUPAP, Elsevier Science and NWO. Requests for financial support should reach the conference secretariat no later than April 15, 2002.

## Visa

All visitors to The Netherlands need a valid passport; in some cases a travel document such as an identity card is sufficient. In addition, participants from a number of countries need a visa to enter The Netherlands. A list of these countries, along with information on how to obtain a visa, can be found on the ICHEP 2002 web site.

An original letter of invitation to the conference is needed when applying for a visa. Registered participants can obtain such a letter from the conference secretariat. As the process for obtaining a visa takes time, requests for letters of invitation should reach the conference secretariat no later than May 1.

## Deadlines

Applications for financial support:	April 15
Early registration:	April 30
Requests for invitation letter for visa:	May 1
Abstract submission:	May 1
Submission of full papers:	July 1
Submission of papers for proceedings:	October 1

## Conference Schedule

	July 24	July 25	July 26	July 27	July 28	July 29	July 30	July 31
Morning		Parallel Sessions	Parallel Sessions	Parallel Sessions	Excursion	Plenary Sessions	Plenary Sessions	Plenary Sessions
Afternoon		Parallel Sessions	Parallel Sessions	Parallel Sessions	Excursion	Plenary Sessions	Plenary Sessions	Plenary Sessions
Evening	Registration/ Refreshments	Welcome Reception		Concert		Public Lecture	Banquet	

### Wednesday, July 24:

17:00 - 20:00 hrs. at the RAI Congress Centre: Pick up conference bag, badge and conference information; possibility for late registration. Refreshments will be served.

### Thursday, July 25:

Welcome reception, RAI Congress Centre

### Saturday July 27:

Concert in the historical Westerkerk, Amsterdam

### Sunday July 28:

Free day for excursions

### Monday July 29:

Public lecture, Aula of the University of Amsterdam

### Tuesday July 30:

Conference banquet at the Muziektheater, Amsterdam

## Parallel Sessions, July 25 - 27

1. Neutrino masses and mixings
2. Quark matter/heavy ion collisions
3. Particle astrophysics and cosmology
4. Electroweak physics
5. QCD: hard interactions, diffraction
6. QCD: soft interactions (DVCS, spin structure, small- $x$ )
7. CP violation and the CKM matrix
8. Heavy quark mesons and baryons (incl. lattice calculations)
9. Hadron spectroscopy and exotics
10. Beyond the Standard Model
11. Computational quantum field theory (methods)
12. String theory and mathematical quantum field theory
13. R&D for future accelerators and detectors

## Plenary Sessions, July 29 - 31

Neutrino masses and mixings  
Heavy ion collisions; Quark matter at high density/high temperature  
Particle astrophysics  
Cosmology and dark matter  
Electroweak physics  
QCD at high energy  
QCD at small  $Q^2$   
CP violation and the CKM matrix  
Lattice results for light and heavy mesons and baryons  
Experimental results for heavy quark mesons and baryons, hadron spectroscopy  
Beyond the Standard Model  
Computational quantum field theory (methods)  
String theory and mathematical quantum field theory  
Looking forward to physics at the LHC  
Future computing in High Energy Physics  
Future accelerators and detectors  
Conference Summary

## Abstracts and Papers

Abstracts of contributions to parallel sessions can be submitted through a special interface on the ICHEP 2002 web page. Participants not able to access the interface should send a message to [ichepcon@nikhef.nl](mailto:ichepcon@nikhef.nl). Deadline for the submission of abstracts is May 1.

The abstracts should be submitted to a specific parallel session. If a contribution is suitable for more than one parallel session, *one* alternative session may be indicated. Abstracts will be forwarded to the conveners of the parallel sessions, who will select contributions for presentation in a parallel session. The abstracts will also be made available to the speakers in plenary sessions. Starting on the first day of the conference, all abstracts can be accessed by the conference participants through the ICHEP 2002 web page.

The full paper belonging to an abstract can be submitted from April 1 until July 1, 2002. Instructions for submission and style will appear on the ICHEP 2002 web site.

## Proceedings

The proceedings of the conference will be published by Elsevier Science. Plenary talks will be published as a Proceedings Supplement of Nuclear Physics B. Papers selected for presentation in parallel sessions will be printed by Elsevier Science as a separate volume and distributed to university and institute libraries. All plenary talks and the selected papers of parallel sessions will also be published on the web via Nuclear Physics Electronic, the electronic journal service of Elsevier Science, which is also accessible through ScienceDirect. Each conference participant will receive a copy of the proceedings on a CD-ROM.

## **E-mail and Laptop Service**

A limited number of PC's will be available for participants to read their e-mail. There will also be a number of possibilities for participants to connect their laptop computers.

## **Exhibition**

On July 29 - 31, the three days of the plenary sessions, companies will display products and services of interest to the participants in the auditorium lobby.

## **Accommodation**

A limited number of rooms has been reserved by the conference secretariat in a variety of hotels in Amsterdam. They can be booked via the ICHEP 2002 web site.

## **Social Program**

### **Welcome Reception**

On July 25, after the first day of parallel sessions, a welcome reception will be organized in the RAI. Participants and registered accompanying persons are welcome (no charge).

### **Concert**

A concert of classical music is scheduled for the evening of Saturday July 27, in the Westerkerk, a 17th century church on a canal in the center of Amsterdam (no charge).

### **Sunday Excursions**

Sunday July 28, is a free day. Suggestions for tours are given below. Participants can sign up for an excursion on the registration web page when registering for the conference. This will also be possible at a later time through a separate page on the ICHEP 2002 web site.

### **Public Lecture**

On Monday July 29, there will be a public lecture in the Aula of the University of Amsterdam, a former Lutheran church dating from 1633 (free admission).

### **Banquet**

The banquet for conference participants and accompanying persons is on July 30 in the Muziektheater, the Amsterdam Opera House. It is located right on the Amstel River and the high open foyers overlook the historical panorama of Amsterdam. Please sign up for the banquet on the registration form.

Fee: conference participants EUR 15, accompanying persons EUR 75.

## **Recommended Excursions for Sunday, July 28**

On Sunday July 28, no scientific sessions are planned and the following excursions are suggested. Only a short description is given below. More details can be found on the ICHEP 2002 web site. Participants can sign up for an excursion when registering on the registration web page. This will also be possible at a later time through a separate page on the ICHEP 2002 web site.

### **Kröller-Müller Museum and Hoge Veluwe**

Some 100 km east of Amsterdam lies the National Park “Hoge Veluwe”, a park protecting a landscape of forest and heath, with wildlife such as deer and wild boar. In the middle of the park one of the best Dutch museums can be found: the Kröller-Müller Museum ([www.kmm.nl](http://www.kmm.nl)). The museum has an excellent collection of paintings (e.g. Van Gogh, Seurat, Picasso, Léger, Mondriaan), and an attractive sculpture garden. After a visit to the museum, the park can be explored on foot or by using one of the thousand free bicycles available to the visitors.

Fee: EUR 77

### **Grand Holland Tour**

This excursion first goes to Aalsmeer, the Dutch center of horticulture. The next stop is the historic and charming city of Delft, famous for its blue pottery. Delft played an important role in the war of Dutch independence between 1568 and 1648. Subsequently, a visit will be paid to Rotterdam with its extensive harbour. The tour then leads to The Hague, residence of the Dutch government, and its seaside resort of Scheveningen (one has to be Dutch to pronounce this name correctly).

Fee: EUR 66

### **Waterland Bicycle Tour**

North of Amsterdam, the area known as “Waterland” is still an unspoilt original Dutch landscape of polders, canals, dikes, wind mills and characteristic villages. A bicycle tour of approximately 40 km leads from the center of Amsterdam through this scenic area.

Fee: EUR 38.50

### **Amsterdam VOC**

Amsterdam commemorates this year the founding of the VOC, the Dutch United East India Company in 1602. This famous shipping company controlled Dutch trade with the far east in the 17th century. This excursion includes a tour through Amsterdam concentrating on VOC history, and a visit to the museum of Naval History and its replica of an East India sailing ship. The tour will be concluded by a ‘canal bike’ tour over water and a visit to an authentic Dutch tavern.

Fee: EUR 66



## **Amsterdam and the Golden Age**

A relaxed afternoon walk past some of the reminders of the Dutch golden age (the 17th century), the royal palace on Dam square, old churches and houses built by merchants along the canals. The tour includes a visit to the Amsterdam Historical Museum.

Fee: EUR 16

## **Accompanying Persons Program**

Accompanying persons are welcome to join. Several activities are proposed below, but of course the whole of Amsterdam as well as many nearby towns and villages are there to be explored on one's own. The fee of EUR 55 for accompanying persons includes refreshments during registration at the conference, an information package about Amsterdam, the fee for the 'Panoramic Amsterdam and Anne Frank House' excursion on Thursday July 25, the welcome reception on Thursday, July 25 and the concert on Saturday, July 27. More details about the excursions can be found on the ICHEP 2002 web page.

Accompanying persons can sign up for an excursion when registering through the registration web page. This will also be possible at a later time through a separate page on the ICHEP 2002 web site.

### **Thursday July 25: Panoramic Amsterdam and the Anne Frank House**

This tour takes you by coach past Amsterdam's most important buildings and monuments. You will visit the Anne Frank house on the Prinsengracht canal, where Anne Frank and seven others went into hiding during World War II to avoid deportation, and where she wrote her diary. A boat cruise through the canals of Amsterdam concludes this excursion.

This tour is included in the accompanying persons fee; other participants: EUR 27.50.

### **Friday July 26: Amsterdam Bike Tour**

Discover Amsterdam by bicycle. Under the guidance of an experienced guide you will ride (at modest speed) in small groups along canals and interesting sights of the city.

Fee: EUR 38.50

### **Sunday, July 28**

Consult the list of 'Recommended Excursions' for all participants above.

### **Monday July 29: Haarlem and the Floriade**

Every ten years, the international gardening and flower exhibition 'Floriade' is being held in The Netherlands. In the summer of 2002, the Floriade takes place in the Haarlemmermeer, a polder approximately 25 km south of Amsterdam. This tour leads you first to the scenic city of Haarlem and then proceeds to the Floriade exhibition.

Fee: EUR 50

## **Tuesday July 30: West Frisia**

Along the coast line of the former Zuider Sea, a number of historic harbour towns are dreaming of a glorious past. Starting from the city of Hoorn you will go by steam train through West Frisia's bulb fields to Medemblik. After lunch you continue to the historic port Enkhuizen for a short walking tour. Near Enkhuizen is the Open Air museum with its original buildings in authentic settings, evoking every day life as it was at the beginning of the 20th century.

Fee: EUR 64

### **And further...**

Amsterdam has much to offer, and is easily explored on foot. A good overview of the sights can be found on the web site [www.simplyamsterdam.nl](http://www.simplyamsterdam.nl). In addition to the major museums (Rijksmuseum, Van Gogh Museum, Stedelijk Museum) many smaller attractions are worth visiting. There is for example the hidden church of Our Lord in the Attic, the Houseboat Museum, the Hortus Botanicus, the Amsterdam Historical Museum, the Willet-Holthuysen Museum (a canal house with authentic old interior), and the Rembrandthuis. The Waterlooplein square and the Albert Cuyp street have daily markets. The old Heineken brewery can be toured. One can also simply stroll along the canals and through the neighbourhoods. A tour by excursion boat or 'canal bike' provides a unique perspective of the canals and the houses along them.

Just outside of Amsterdam is the historic town of Haarlem, which can easily be reached by train. One stop further is the beach resort Zandvoort.

## **Coming to Amsterdam**

### **Air**

Amsterdam Airport, Schiphol ([www.schiphol.nl](http://www.schiphol.nl)), is frequented by many international airlines. It is the homebase of KLM (Royal Dutch Airlines).

The airport is located conveniently close to the city. Schiphol has its own train station with frequent connections to the Amsterdam Centraal Station and the RAI Congress Center. A ride by taxi to a location in the center of Amsterdam costs around EUR 25. Some hotels run a shuttle service to the airport.

### **Train**

There are several international trains per day directly connecting Amsterdam Centraal with Brussels, London (via the Channel Tunnel), Paris, Cologne and Berlin. In summer, there are night trains from Copenhagen, Basel, Munich and Prague.

### **Car**

Amsterdam is easily reached by highway. However, as with most major cities, parking is difficult in the center of Amsterdam. Furthermore, the public transport system in

Amsterdam and its surroundings is well organized and makes a car not really a necessity. A permit for parking at the RAI for the duration of the conference can be purchased for EUR 45.

### **Getting around in Amsterdam**

It is very easy to get around in Amsterdam by bus, tram or metro. A pass for the public transport system in Amsterdam during the conference can be purchased for EUR 17.80.