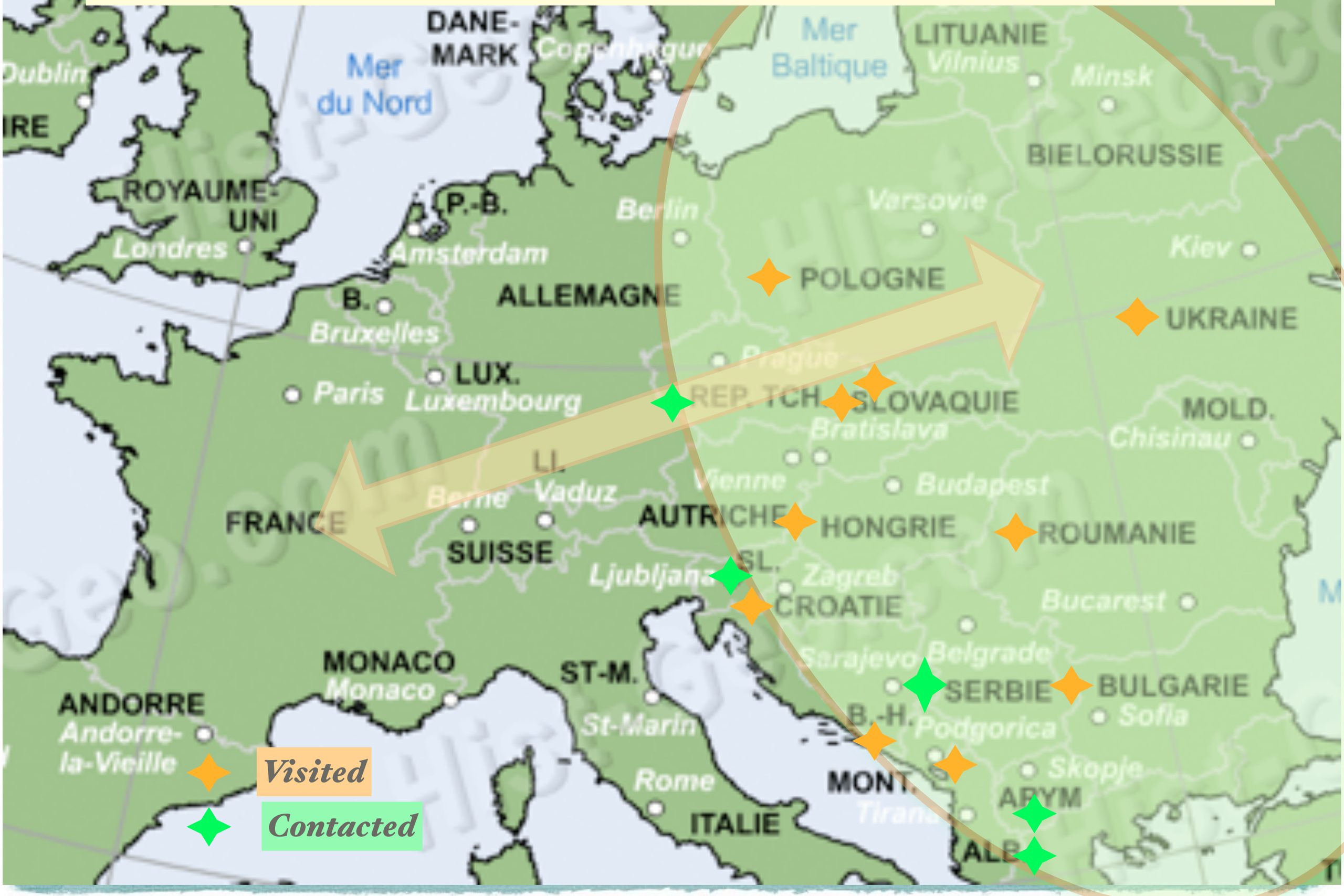
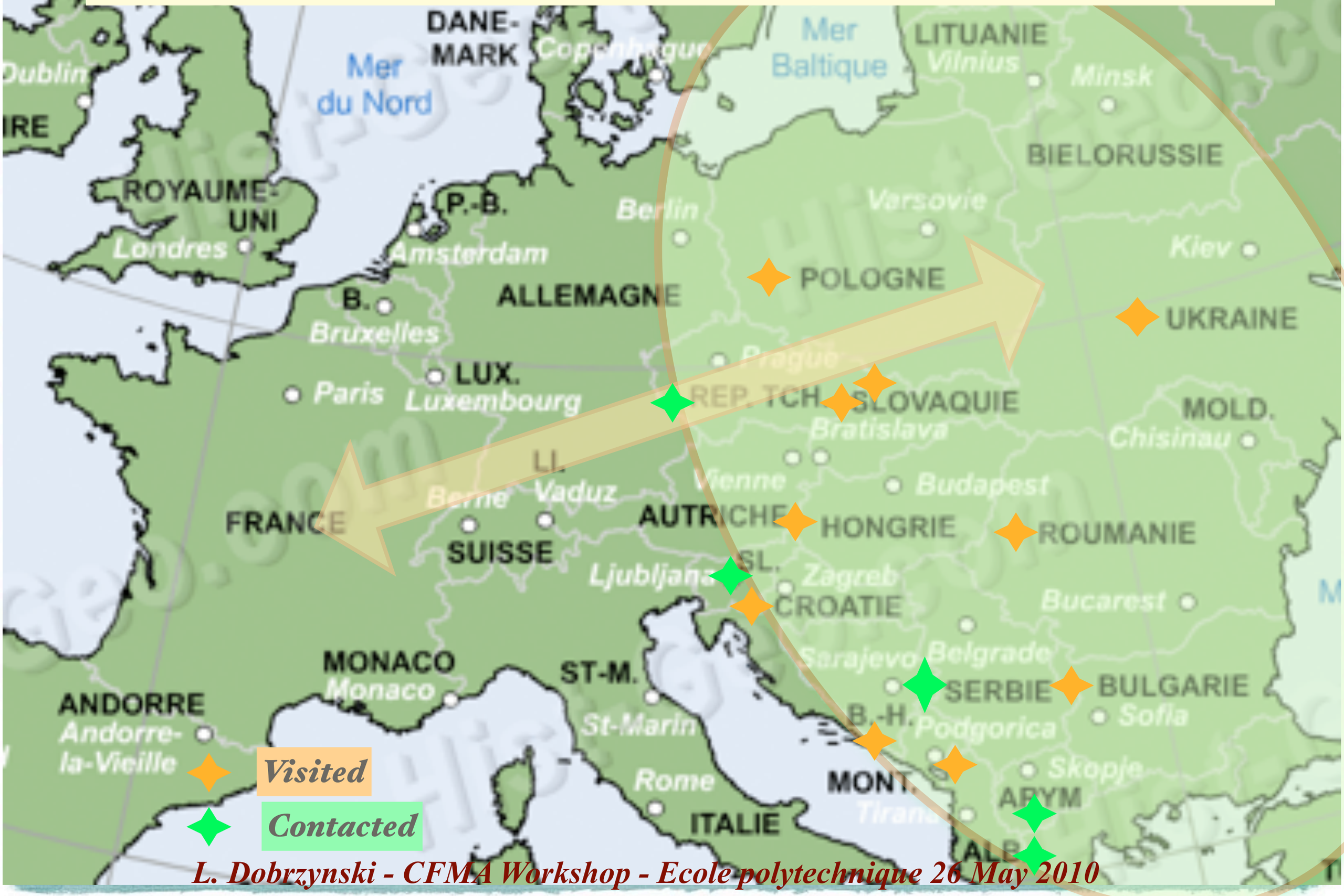
TRANS EUROPE INITIATIVE



TRANS EUROPE INITIATIVE



L. Dobrzynski - CFMA Workshop - Ecole polytechnique 26 May 2010

First steps towards TEI

- **In 2007, IN2P3, thanks to the help of François Le Diberder, has supported the creation of a school of Physics in Ukraine.**
- **This school, for students in the last Year of Master degree or in their first PhD Year, was devoted to provide high level curses in HEP and to create more links between East and West mainly oriented towards the new young generations.**
- **The first edition of the school took place in Ukraine and was a nice success. About 31 students from East and Central Europe but also from Western countries attended to it.**
- **Its 2008 edition will also take place in Ukraine, but from 2009, the school will become mobile.**
- **The 2009 edition will be in Krakow (Poland).**
- **The natural next step is to form a group which will coordinate the scientific and formation activities between France and Central Europe countries.**
- **From there issued the “Trans Europ Initiative” mission.**

The Initiative

The next step is to coordinate the formation and research activities between CNRS/IN2P3 and Central Europe countries. For that purpose CNRS/IN2P3 is setting up a "Trans Europe Initiative" (TEI) which will explore the possibilities of cooperation agreements in HEP between CNRS/IN2P3 and the different countries from Central Europe.

Each country will be visited to evaluate the cooperation possibilities, in close cooperation, when it applies, with the Office of European affairs (CNRS/DAE), the Office of International Relations (CNRS/DRI), and the scientific and the French embassy.

The mission to coordinate the TEI is given to Ludwik DOBRZYNSKI who will form a group of CNRS/IN2P3 scientists, with at least one representative for each of the country to be considered. The group, under his leadership and the authority of the Deputy Director of CNRS/IN2P3 in charge of HEP, will explore the following two domains:

TEI mission and objectives

- **TEI has to explore the possibilities of cooperation agreements between IN2P3/CNRS, the different countries from Central Europ which will be visited and the scientific and university structures existing at the french embassies in these countries.**

- **This mission will explore the following two domains:**

1. High level education in particle physics

- **By developing the interest, in the visited centers and universities, to send their best students to our physics school**

- **By proposing to the students to follow Master 2 curses in France, opening such the possibility to obtain a PhD support for them, the PhD being developed in co-supervision • by proposing to the students financial support provided by the french embassies for Master 2 or PhD projects in co-supervision.**

- **By proposng to the French embassies to provide financial support for the selected students**

2. Scientific Research

The objective of the mission is also to find common interests between IN2P3 high energy teams and the local visited teams :

- ***To participate to a GDRI based on the Physics at LHC***

- **To join to experimental works in the HEP domains with French teams**

- **To consolidate of existing collaboration within LHC/ILC projects**

- **To share common tools like computing within GRID projects**

- **To develop in collaboration new instrumentation techniques for the particle detection and/or acceleration. Common R&D programs oriented to the SLHC and ILC projects will be favored.**

Present status

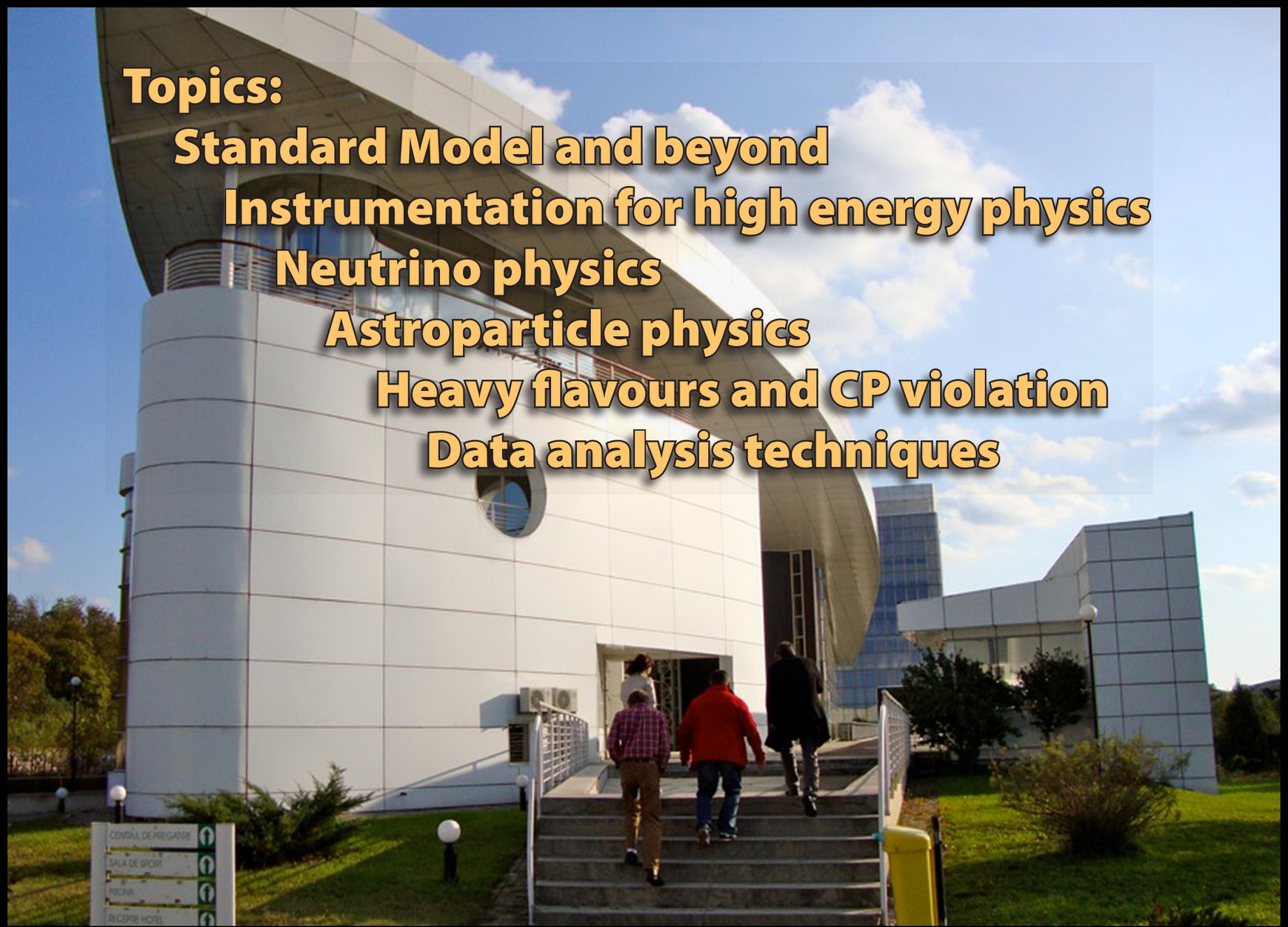
- Visited countries (the contacts are rich : Institutes, French Embassies, local authorities...)
  - 2007 Ukraine and Poland
  - 2008 Pologne , Ukraine, Hongary, Rumania, Slovacia, Croatia, Bulgaria, Ukraine, Tchecie
  - 2009 Poland, Croatia, Monte Negro, Bosna-Herzegovnia, Rumania
  - 2010 Roumanie, Bosna-Herzegovnia (School of Physics),
    in project Macedonia, Albania, Croatia
- Long term project : Serbie, Slovenie .... Russie (??)
  - **School of Physics : TESHEP** **(Trans Europe School of High Energie Physics)**
    - ***Ukraine in 2007 and 2008***
    - ***Poland (Zakopane) in 2009***
    - ***Rumania in 2010***

http://events.lal.in2p3.fr/TES-HEP/

- **School of High Energy Physics in Sarajevo**

http://www.pmf.unsa.ba/fizika/SCHOOL/

Trans-European School of High Energy Physics



Olympic Complex "Sydney 2000"
Romania, July 7-15, 2010

Program & Organizing Committee

C. Alexa	IFIN-HH
S. Barsuk	LAL/IN2P3-PSud
F. Beaudette	LLR/IN2P3
C. Bourge	LAL/IN2P3-PSud
L. Dobrzynski	LLR/IN2P3
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V. Sharyy	IRFU
A. Stocchi	LAL/IN2P3-PSud
G. Stoicea	IFIN-HH
N.V. Zamfir	IFIN-HH

Organization

Morning: lectures
Afternoon: topical seminars, practical work, student session

Web page http://events.lal.in2p3.fr/TESchool10/

Contact: teschool10@lal.in2p3.fr

Deadline for applications: 1 May 2010

Trans-European School of High Energy Physics

Olympic Complex "Sydney 2000", Izvorani Village, Ilfov County, Romania
July 7-14, 2010

Lectures	Professor's name	Allocated time (in units of 50 minutes + 5 minutes questions)
Accelerators	Alessandro Variola	3 hours
Astroparticles	Sylvie Lees-Rosier	3 hours
Heavy Flavours	Marie-Hélène Schune	3 hours
Instrumentation	Sergey Barsuk/Maxim Titov	5 hours
Medical physics	Paul Lecoq	2 hours
Neutrino physics	Agnieska Zalewska	3 hours
Precision tests of Standard Model	Stéphane Monteil	2 hours
Standard Model	Alexander Korchin	3 hours
Beyond Standard Model	Dan Pirjol	2 hours
Practical Work on data analysis	Slava Sharyy + dream team	4 hours

LHC Afternoon
Introduction to the afternoon
LHC starting from machine point of view
QCD studies from first LHC Data - theory
CMS results from first data
ATLAS results from first data
LHCb results from first data
The Heavy Ions program (ALICE)

Seminars	Professor's name	
Tools for High Energy Physics	Gabriel Stoicea (IFIN-HH)	*Seminar 1*
Dynamical aspects of chiral symmetry breaking in Quark-Gluon Plasma	Virgil Baran (Bucharest Univ.)	*Seminar 2*
Novel sensors and microreadout systems. From HEP to applications	Valery Pugatch (KINR)	*Seminar 3*
Alignment of large precision tracking systems - consequences for physics	Pawel Bruckman (Krakow)	*Seminar 4*
Proton PDFs at HERA	Voica Radescu (DESY)	*Seminar 5*
Searching for New Physics in heavy flavour physics	Dan Pirjol (IFIN-HH)	*Seminar 6*

The students should prepare a 5 minutes presentation on a subject they are currently working on or are planning to work on. They should come to the school with the material needed (at least on paper).
Sessions are allocated for work with the teachers to prepare the presentation.

Trans-European School of High Energy Physics

Olympic Complex "Sydney 2000", Izvorani Village, Ilfov County, Romania
Julv 7-14. 2010

	Wednesday July 7th	Thursday July 8th	Friday July 9th	Saturday July 10th	Sunday July 11th	Monday July 12th	Tuesday July 13th	Wednesday July 14th
09h00-10h00	Introduction	Standard Model	SM and beyond	Accelerators		Heavy flavours	Neutrino physics	Neutrino physics
10h00-11h00	Standard Model	Precision tests	Precision tests	Heavy flavours		Instrumentation	Medical physics	Medical physics
11h00-11h30	Break	Break	Break	Break		Break	Break	Break
11h30-12h30	Instrumentation	Instrumentation	Instrumentation	Instrumentation		Beyond SM	Astroparticles	Astroparticles
12h30-13h30	Standard Model	Accelerators	Accelerators	Heavy flavours		Beyond SM	Neutrino physics	Astroparticles
13h30-15h00	Lunch	Lunch	Lunch	Lunch		Lunch	Lunch	Lunch
15h00-16h00	Seminar 1	Seminar 3	LHC afternoon	Seminar 4		Seminar 6	Students presentations	Students presentations
16h00-17h00	Seminar 2			Seminar 5		Answers TP / Slava session		
17h00-17h30	Break	Break		Break		Break		
17h30-18h30	Students work with teachers on presentation	TP / Students work with teachers on presentation		TP / Students work with teachers on presentation				
18h30-19h30	Students work with teachers on presentation	TP / Students work with teachers on presentation		TP / Students work with teachers on presentation				Summary

Topical seminar: warning seminar should last for 50' and 10' for questions

Lectures : warning the lecture should last for 50' and 10' for questions

Students presentations (5 minutes presentation + 2 minutes questions)

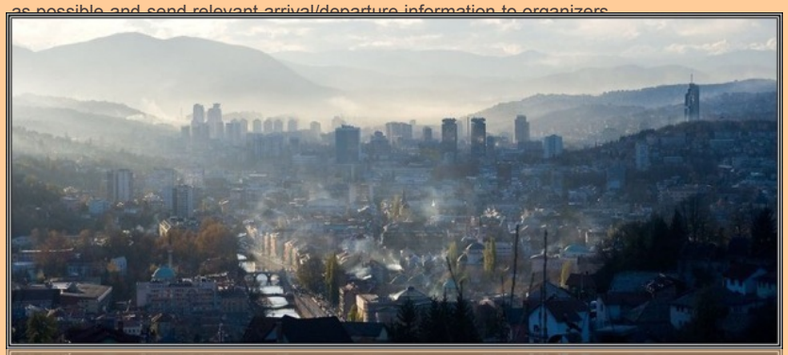
School of High Energy Physics in Sarajevo

DEPARTMENT OF PHYSICS
FACULTY OF NATURAL SCIENCES
UNIVERSITY OF SARAJEVO

PROGRAM | CONTACTS | COMMITTEE | PARTICIPANTS
NOTIFICATIONS | LOCATION | SUPPORT | BOSANSKI

"**School of High Energy Physics in Sarajevo**" will be held at the Department of Physics, Faculty of Natural Sciences, University of Sarajevo from May 10 to May 12, 2010. The School aims at the undergraduate and beginning graduate students who are interested in topics pertaining to High Energy Physics (HEP). All interested students are encouraged to contact the organizers via e-mail as soon as possible. To apply, it is sufficient to send a short Curriculum Vitae and a letter of motivation to any of e-mail addresses listed in CONTACTS.

All students who would require accommodations during the School should register as soon as possible and send relevant arrival/departure information to organizers.



The School's POSTER (JPG 299 KB) by Nedim Mujić.

The School topics include:

- Accelerator physics: Large Hadron Collider
- Data analysis in HEP
- Instrumentation
- Standard Model
- Physics beyond the Standard Model
- Symmetries in HEP
- Astroparticle physics

Lecturers are:

- prof. Daniel Denegri
- prof. Ivica Puljak
- prof. Svjetlana Fajfer
- prof. Goran Senjanović
- prof. Ludwik Dobrzynski
- prof. Nikola Godinović
- prof. Vuko Brigljević
- prof. Damir Lelas

An exhibition on Large Hadron Collider physics will be organized in the lobby of the Faculty of Natural Sciences that will be open to all.

Lectures will be delivered at the Department of Physics (Mali Amfiteatar lecture Hall).

WE ARE SUPPORTED BY:

- French Embassy (http://www.ambafrance-ba.org/)
- IN2P3 (www.in2p3.fr/)
- SEENET-MTP (www.seenet-mtp.info/)
- Faculty of Natural Sciences (www.pmf.unsa.ba/)

School of High Energy Physics in Sarajevo, May 10 - 12, 2010.

INSTITUT NATIONAL DE PHYSIQUE NUCLÉAIRE ET DE PHYSIQUE DES PARTICULES

IN2P3

3, RUE MICHEL-ANGE • 75794 PARIS CEDEX 16

TÉL. : 01 44 96 40 00 • TÉLÉCOPIE : 01 44 96 53 40

MS/FLD/SV/08.0156

Paris, le 09 avril 2008

Trans Europe Initiative (TEI) mission

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- By developing the interest, in the visited centers and universities, to send their best students to the CNRS/IN2P3 LHC physics school,
- By proposing to the best students to follow Master 2 curses in France, and hence opening the possibility to obtain a PhD support for them, the PhD being developed in co-supervision,
- By proposing to the French embassies to provide financial support for the selected students.

2) Scientific Research.

- Common data analysis works on ongoing experiments,
- Consolidation of existing collaboration within LHC-ILC projects,
- Sharing of common tools like computing within GRID projects,
- Developing in collaboration new instrumentation techniques for the particle detection and/or acceleration. Common R&D programs oriented to the SLHC, ILC (CLIC) and superb Factory projects will be favored.

Michel SPIRO
Directeur de l'IN2P3

Copie : François Le Diberder, Directeur Adjoint Scientifique en charge de la physique des particules