The Abdus Salam International Centre for Theoretical Physics

SCHOOL ON ECOLOGICAL ECONOMICS and CONFERENCE ON THEORETICAL TOPICS IN ECOLOGICAL ECONOMICS (School: 27 Jan-28 Feb;Conference: 10-21 Feb)

Cosponsor(s): Co-organizers: The Beijer International Institute of Ecological Economics and Fondazione Eni Enrico Mattei - FEEM
Organizer(s): Directors: Partha DASGUPTA, Karl-Goran MALER
Local Organizer(s): M. Marsili
Trieste - Italy, 27 January 2003 - 28 February 2003

Venue: Adriatico Guest House Giambiagi Lecture Hall

Final programme

MONDAY, 27 JANUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. Hans WALLIN

27 January 2003

08:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
REGISTRATION and ADMINISTRATIVE FORMALITIES

11:00 - 13:00 **Hans WALLIN** / *University of Umea, Sweden*
Dynamical systems - 1

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 16:30 **Partha DASGUPTA** / *The Beijer Institute, Sweden & University of Cambridge, U.K.*
Games and non-market exchanges - 1

19:00 - 20:00 (Room: Adriatico Guest House Cafeteria)
--- GET TO-GETHER DRINK ---

TUESDAY, 28 JANUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. Hans WALLIN

28 January 2003

08:30 - 10:30	**Hans WALLIN** / *University of Umea, Sweden* **Dynamical systems - 2**
10:30 - 11:00	(Room: Adriatico Guest House (Lower Level 1)) --- COFFEE BREAK ---
11:00 - 13:00	**Partha DASGUPTA** / *The Beijer Institute, Sweden & University of Cambridge, U.K.* **Games and non-market exchanges - 2**
13:00 - 14:30	(Room: Adriatico Guest House Cafeteria) --- LUNCH ---

WEDNESDAY, 29 JANUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. Hans WALLIN

29 January 2003

08:30 - 10:30	**Hans WALLIN** / *University of Umea, Sweden* **Dynamical systems - 3**
10:30 - 11:00	(Room: Adriatico Guest House (Lower Level 1)) --- COFFEE BREAK ---
11:00 - 13:00	**David STARRETT** / *Stanford University, U.S.A.* **Basic resource allocation - 1**
13:00 - 14:30	(Room: Adriatico Guest House Cafeteria) --- LUNCH ---

THURSDAY, 30 JANUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. Hans WALLIN

30 January 2003

08:30 - 10:30	**Hans WALLIN** / *University of Umea, Sweden* **Dynamical systems - 4**
10:30 - 11:00	(Room: Adriatico Guest House (Lower Level 1)) --- COFFEE BREAK ---
11:00 - 13:00	**David STARRETT** / *Stanford University, U.S.A.* **Basic resource allocation - 2**
13:00 - 14:30	(Room: Adriatico Guest House Cafeteria) --- LUNCH ---

FRIDAY, 31 JANUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. Hans WALLIN

31 January 2003

08:30 - 10:30 **Hans WALLIN** / *University of Umea, Sweden*
Dynamical systems - 5

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **David STARRETT** / *Stanford University, U.S.A.*
Basic resource allocation - 3

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

MONDAY, 3 FEBRUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. David STARRETT

3 February 2003

08:30 - 10:30 **Giulio DE LEO** / *University of Parma, Italy*
Barriers and obstacles to sustainable development

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Giulio DE LEO** / *University of Parma, Italy*
Case studies of population dynamics and management
Case study 1: The poplulation viability analysis of grey partridge: Case study 2: A sthocastic bioeconomic analysis of silver eel fisheries

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

TUESDAY, 4 FEBRUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. David STARRETT

4 February 2003

08:30 - 10:30 **Giulio DE LEO** / *University of Parma, Italy*
Case studies of population dynamics and management
Case study 3: Reducing the impact of algal blooms on clam fishery

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **David STARRETT** / *Stanford University, U.S.A.*
Dynamic optimization - 1

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

WEDNESDAY, 5 FEBRUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. David STARRETT

5 February 2003

08:30 - 10:30 **David STARRETT** / *Stanford University, U.S.A.*
Dynamic optimization - 2

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Karl-Goran MALER** / *The Beijer Institute, Sweden & University of Stockholm, Sweden*
Welfare economics in imperfect economics - 1

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

THURSDAY, 6 FEBRUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. David STARRETT

6 February 2003

08:30 - 10:30 **Aart DE ZEEUW** / *Tilburg University, The Netherlands*
Differential games - 1

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Karl-Goran MALER** / *The Beijer Institute, Sweden & University of Stockholm, Sweden*
Welfare economics in imperfect economies - 2

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

FRIDAY, 7 FEBRUARY 2003 (Room:Adriatico Guest House Giambiagi Lecture Hall)
Chairperson: Prof. David STARRETT

7 February 2003

08:30 - 10:30 **Aart DE ZEEUW** / *Tilburg University, The Netherlands*
Differential games - 2

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Karl-Goran MALER** / *The Beijer Institute, Sweden & University of Stockholm, Sweden*
Welfare economics in imperfect economies - 3

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

MONDAY, 10 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

10 February 2003

08:30 - 09:15 (Room: Adriatico Guest House (Lower Level 1))
REGISTRATION and ADMINISTRATIVE FORMALITIES

09:15 - 09:30	**Prof. Erio TOSATTI** / *Acting Director of the Abdus Salam ICTP, Trieste, Italy* **ICTP WELCOME ADDRESS**
09:30 - 09:45	**Peter BRIDGEWATER** / *UNESCO - Director, Division of Ecological Sciences, Paris, France* **OPENING SESSION**
09:45 - 10:00	**Partha DASGUPTA** / *The Beijer Institute, Sweden & University of Cambridge, U.K.* **EEE PROGRAMME PRESENTATION**
10:00 - 10:15	**Carlo CARRARO** / *Fondazione Eni Enrico Mattei & University of Venice, Italy* **EEE PROGRAMME PRESENTATION**
10:15 - 10:30	**Lucio DELCARO** / *Dean of the University of Trieste, Italy* **EEE PROGRAMME PRESENTATION**
10:30 - 11:00	--- COFFEE BREAK ---
11:00 - 12:30	**CHAIRMAN - Karl-Goran MALER** / *The Beijer Institute, Sweden & University of Stockholm, Sweden* **ECONOMIC SESSION**
11:05 - 12:05	**Robert SOLOW** / *M.I.T., U.S.A.* **Back to backstop technologies: Simpler than sustainability**
12:00 - 12:30	**General discussion**
12:30 - 15:00	(Room: Adriatico Guest House Cafeteria) --- LUNCH ---
15:00 - 18:30	**CHAIRMAN - Partha DASGUPTA** / *The Beijer Institute, Sweden & University of Cambridge, U.K.* **ECOLOGY SESSION**
15:05 - 16:05	**Simon LEVIN** / *Princeton University, U.S.A.* **Resiliency and control in complex adaptive systems: Managing ecological systems**
16:00 - 16:30	**General discussion**
16:30 - 17:30	(Room: Adriatico Guest House Cafeteria) --- GET TO-GETHER DRINK ---

TUESDAY, 11 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

11 February 2003

08:30 - 10:30	**Aart DE ZEEUW** / *Tilburg University, The Netherlands* **The Economics of shallow lakes**
10:30 - 11:00	(Room: Adriatico Guest House (Lower Level 1)) --- COFFEE BREAK ---
11:00 - 13:00	**Stephen CARPENTER** / *University of Wisconsin-Madison, U.S.A.* **Ecological economics of lake water quality - precaution and mud**
13:00 - 14:30	(Room: Adriatico Guest House Cafeteria) --- LUNCH ---

14:30 - 16:30 **Simon LEVIN** / *Princeton University, U.S.A.*
Travelling in space: Spatial aspects of ecological dynamics

WEDNESDAY, 12 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

12 February 2003

08:30 - 10:30 **Giulio DE LEO** / *University of Parma, Italy*
The economic benefit of kyoto protocol

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Marino GATTO** / *Politecnico di Milano, Italy*
An introduction to chaos in ecological and economic systems

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 16:30 **Marino GATTO** / *Politecnico di Milano, Italy*
Complex dynamics and the direction of evolution

THURSDAY, 13 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

13 February 2003

08:30 - 10:30 **Anne Sophie CREPIN** / *The Beijer Institute, Sweden & University of Stockholm, Sweden*
Management issues for natural resources produced within complex ecosystems

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Partha DASGUPTA** / *The Beijer Institute and University of Cambridge, U.K.*
Population, poverty, the material resource base

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 16:30 **Arcadio CERDA** / *University of Talca, Chile*
Chilean experiences in Contingent Valuation Approach

FRIDAY, 14 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

14 February 2003

08:30 - 10:30 **Kanchan CHOPRA** / *Inst.of Economic growth, Univ. of Delhi, India*
Role of non-market allocation: Theory and empirical evidence

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **David STARRETT** / *Stanford University, U.S.A.*
Dynamics of nonconvex systems with applications to fisheries and shallow lakes

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

MONDAY, 17 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

17 February 2003

08:30 - 10:30 **Robert SCHOLES** / *CSIR, South Africa*
African savannahs as non-linear systems

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Anastasios XEPAPADEAS** / *University of Crete, Greece*
Instabilities and Robust Control in Fishery Management

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 16:30 **Jack GOODY** / *Cambridge University, U.K.*
Globalisation, fertility, economy and education

TUESDAY, 18 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

18 February 2003

08:30 - 10:30 **Brian WALKER** / *CSIRO, Australia*
Managing for resilience in social-ecological systems

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Karl-Goran MALER** / *The Beijer Institute and University of Stockholm, Sweden*
Wealth, welfare and sustainable development

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 16:30 **Scott BARRETT** / *Johns Hopkins University, U.S.A.*
Regional and Public Goods - Parts I,II and III
This lecture was not actually given, but reference material is included for those interested.

WEDNESDAY, 19 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

19 February 2003

08:30 - 10:30 **Sara ANIYAR** / *University of Zulia, Maracaibo, Venezuela*
The accounting price for oil

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

THURSDAY, 20 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

20 February 2003

08:30 - 10:30 **Jean-Philippe PLATTEAU** / *Faculte Universitaires Notre Dame de la Paix, Belgium*
Collective action and management of the village commons

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 13:00 **Rashid M. HASSAN** / *University of Pretoria, South Africa*
The dynamics of optimal crop pest management under pest resistence to chemical control

13:00 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

FRIDAY, 21 FEBRUARY (Room:Adriatico Guest House Kastler Lecture Hall)

21 February 2003

08:30 - 10:30 **Jeff VINCENT** / *University of California, San Diego, U.S.A.*
Species-area relationships and bioprospecting values

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 12:00 **DISCUSSION ON REPORTS**

12:00 - 14:00 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:00 - 16:00 **Charles PERRINGS** / *University of York, UK*
Conservation and the Optimal Use of Rangelands

MONDAY, 24 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

24 February 2003

09:00 - 10:30 **REPORT DISCUSSION**

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 12:30 **REPORT + TUTORIALS**

12:30 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 17:00 (Room: Adriatico Guest House Informatics Lab.)
REPORT WRITING

TUESDAY, 25 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

25 February 2003

09:00 - 10:30 **REPORT DISCUSSION**

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 12:30 **REPORT + TUTORIALS**

12:30 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 17:00 (Room: Adriatico Guest House Informatics Lab.)
REPORT WRITING

WEDNESDAY, 26 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

26 February 2003

09:00 - 10:30 **REPORT DISCUSSION**

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 12:30 **REPORT + TUTORIALS**

12:30 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 17:00 (Room: Adriatico Guest House Informatics Lab.)
REPORT WRITING

THURSDAY, 27 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

27 February 2003

09:00 - 10:30 **REPORT DISCUSSION**

10:30 - 11:00 (Room: Adriatico Guest House (Lower Level 1))
--- COFFEE BREAK ---

11:00 - 12:30 **REPORT + TUTORIALS**

12:30 - 14:30 (Room: Adriatico Guest House Cafeteria)
--- LUNCH ---

14:30 - 17:00 (Room: Adriatico Guest House Informatics Lab.)
REPORT WRITING

FRIDAY, 28 FEBRUARY 2003 (Room:Adriatico Guest House Kastler Lecture Hall)

28 February 2003

09:00 - 10:30 **REPORT DISCUSSION**

10:30 - 11:00	(Room: Adriatico Guest House (Lower Level 1)) --- COFFEE BREAK ---
11:00 - 12:30	**REPORT + TUTORIALS**
12:30 - 14:30	(Room: Adriatico Guest House Cafeteria) --- LUNCH ---
14:30 - 17:00	(Room: Adriatico Guest House Informatics Lab.) **REPORT WRITING**