ICTP Efforts to Support S
Developing Countrie

Canessa

ICTP

Abdus Salam International
tre for Theoretical Physics

founded in 1964, by the
Nobel Laureate Abdus Salam

ceives the majority of its
ding from the Italian
ernment and is administered
he United Nations
cational, Scientific and
tural Organization (UNESCO)
the International Atomic

Since 1964, the main aim of IC

to foster the growth of advanced

and research in the developing c

. . . today its mandate has bec

even more relevant!

Specially so with the

TP mandate

ICTP has the mandate

o foster the growth of
vanced research in physics and
thematics, especially among
**earchers from developing
untries**

o create an international forum
the exchange of scientific
rmation through courses,
rkshops and seminars

TP facilities

, in its campus

ccomodates on average 400
entists each day

ouses one of the largest
aries in the field of physics and
hematics in Europe, with more
n 64000 books, 400 printed
nals and more than 3500 e-
nals

TP statistics

CTP hosts

ore than 4,000 scientists each
r - 6,000 in 2006

ome 40 training activities per
r

ore than **100,000** visits since
4

60% from developing

jital divide

ur experience, the growth of the Internet in the Un
eloping countries has to face these problems:

ted bandwidth of available telecommunication
congestion and making access exceedingly slow,
*ts of usability –**Lack of infrastructure; connectivi*

ufficient computer literacy of the academic con
sequent insufficient understanding of the potentia
ol for spreading information (contrasted with its us
rmation generated elsewhere)

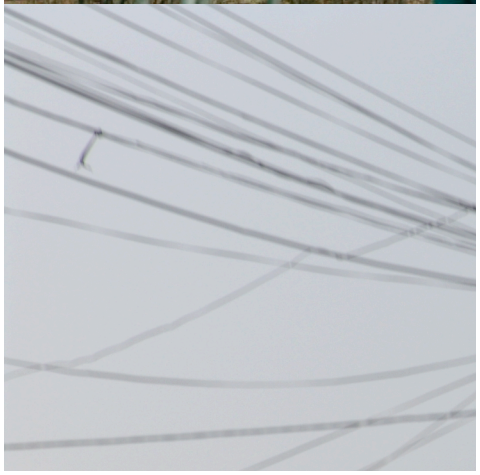
aim to promote collaboration, enhance knowledg

T at ICTP

is a basic infrastructure
essary for the economic and
al development of a country but
for its **scientific and**
nological progress.

academic community is a
damental starting point for
se efforts to permeate to the
t of society

e underlying problem is the



tivities on ICT

nogical activities carried out
TP

he "**C**", communications, is
vered by the Aeronomy and
diopropagation Laboratory
PL) which works on wireless
working

he "**I**", information, is covered
the Science Dissemination
t (SDU) which works on
tronic scientific contents

ence Dissemination Unit

The SDU has been created with the br
communicating scientific contents a
to more people than are able to visit
to the public in general throughout t
any electronic media type.

DU is a concrete example of helping to bridge the digi
vide in developing countries in terms of applying low-
ource information and communication technologies (IC
ssemination, support and internationalization of scien

orkshops in Trieste

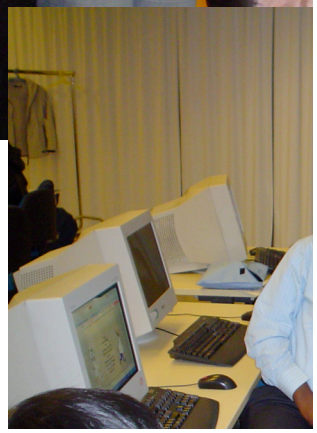
lly:

to 3 weeks

han 300 applications: 40 selected

-on lectures on Networking, Band-
Optimization, Wireless
ologies, Antenna Building, Wireless
ty, Web – Proxy/Caching Servers…

source based technologies by
rs and experts from Europe and



- *more than 250 Applications receiv*

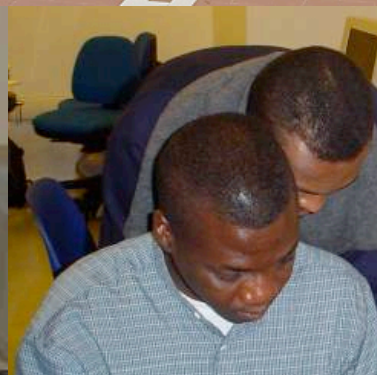
Specially competitive selection according to:

Technical questionnaire filled with Application/Refer

Working/coming from Developing Countries/Researc

Apply knowledge acquired upon return home


Web Enabling Technologies and Strateg
7 - 12 November 2005



Using Open Access for Science Disseminati

workshop is meant to be very practical with han
demonstration on the technical setup needed, or
ntenance of OAA and OAJs. Tentative topics incl

en knowledge initiatives; open access to scientific
olarly and scientific collaborations, communicatio
olishing; policy to promote open access besides ir
icies; Dspace and ePrints software for the develo
ess Archives; Metadata concept; Open Archives
servation and backups; Open Journal Systems (C

n-site training

ining has also been carried
in:

mania,

ia, Bangladesh,

nya, Cameroon, Nigeria,
hin, Ghana, Senegal, Sudan,
lawi

u, Venezuela

ee Book I

eless Networking in Developing World”

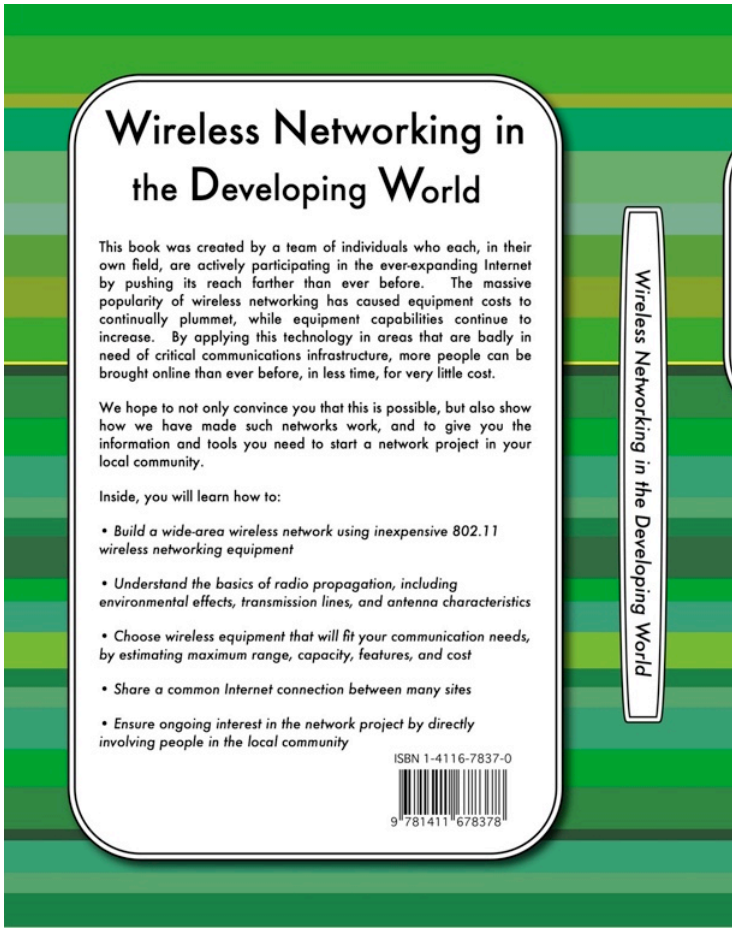
en in less than 3 months

k Sprint” methodology

e Alike Commercial (you print it and sell it keeping ce)

than 100 downloads ay!

able also in Spanish, sh



ee Book II

dwidth Management Optimization”

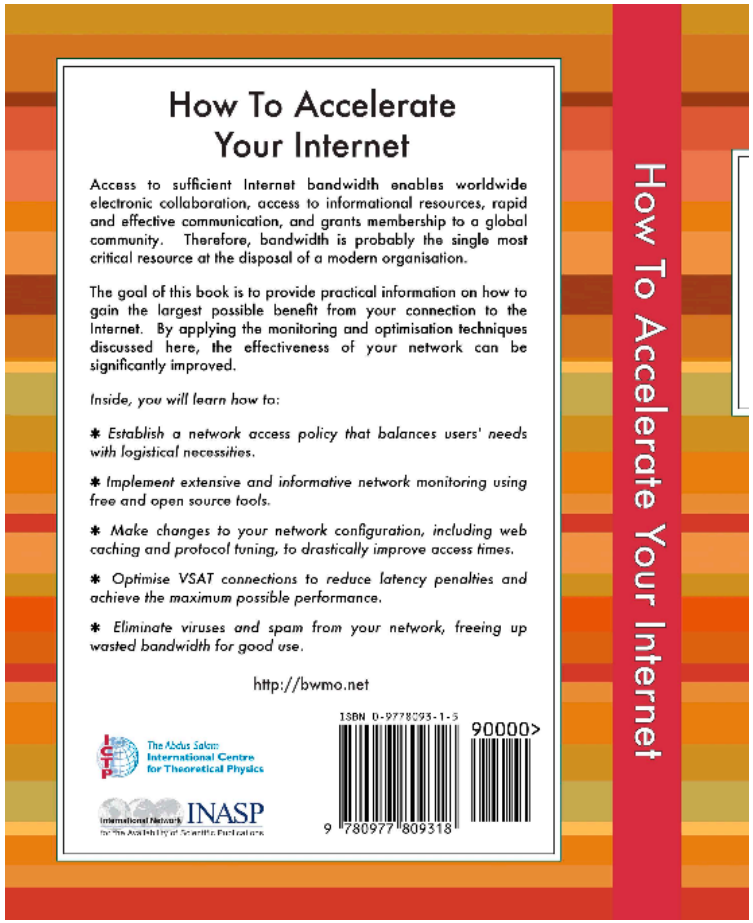
en in 4 months

k Sprint” methodology

e Alike Commercial

old ~160 copies per h and had ~2051 nloads per month

.bwmo.net



DS

electronic Journals Delivery Service (eJDS)

litate the access to current
fic literature free of cost

tribute individual scientific articles
nail **to scientists** in Developing
ies with low bandwidth access to
t

s to agreements with the
hers

can Physical Review

n Access journal on
ics,publishes special issues
cated to a rapidly developing
of physics and proceedings of
erences held in Africa.

PingER Africa

R project, carried out in
oration with SLAC in Stanford
et End-to-end Performance
oring –IEPM)

nalyzes the (almost) **Real-**
connectivity data for Africa
than 60 African institutions)

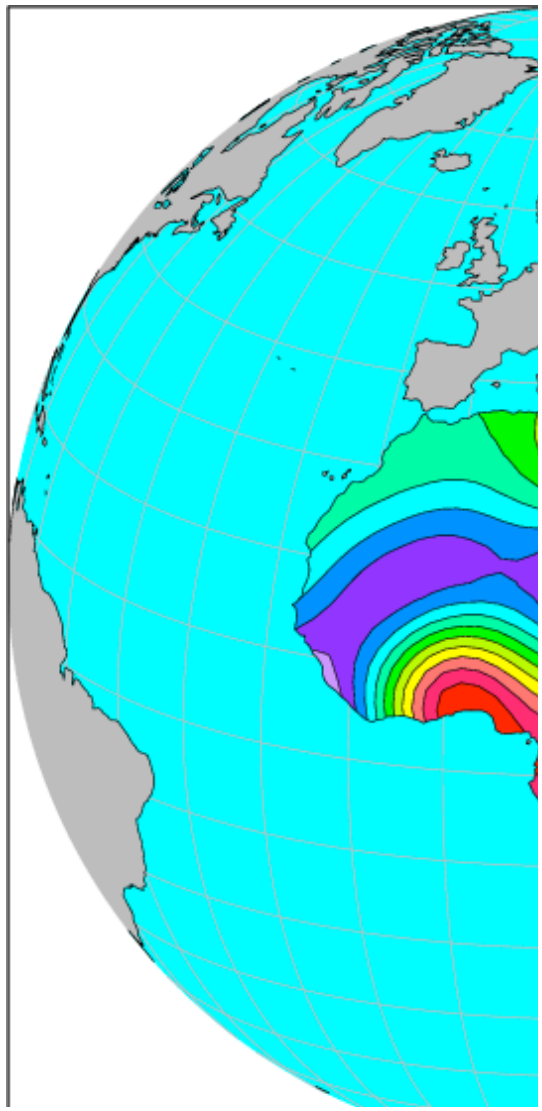
arison with other regions: To
pectations for QoS, to
stand where upgrades are

gER work in progress

our map of Africa with
ectivity values given by
ER (“Internet Weather Forcast”)

e.g.: pyNGL
//www.pyngl.ucar.edu/Functio
otid.shtml

ciate PinGER results to other
omic indexes ; relate e.g. to
DAI (Digital Access Index) and



gER proposal

board, embedded box
ng Linux (in just 66 x 72 mm)

power, runs perl, php, etc

(~150 Euro), easy to set
program

stall in developing
tries to measure PinGE
ectivity inside a country
de a continent

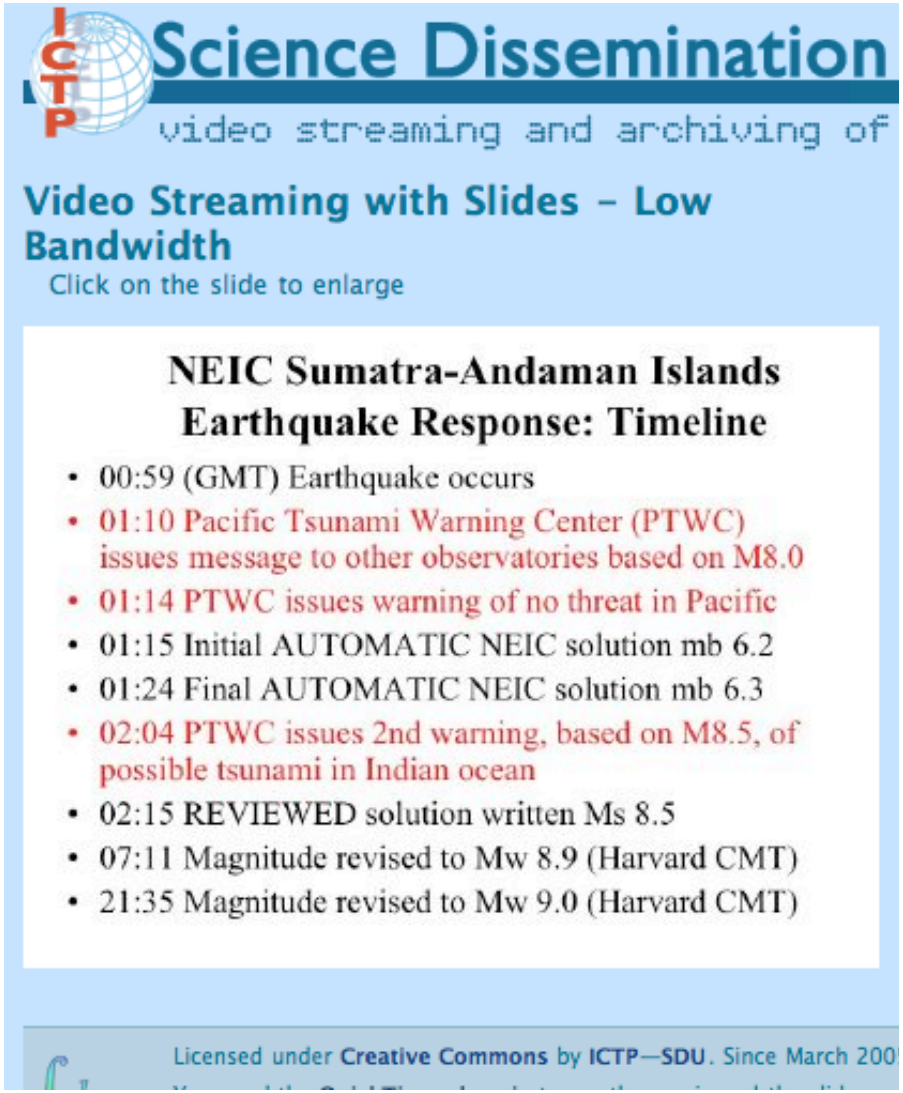
ital lectures – Maths, Phys

o/Video streaming
archive of Scientific
ures at ICTP

rding lectures is very
nsive (200-300$ per
)

hronized video and
s is needed

shop on Rich-Media



r approach

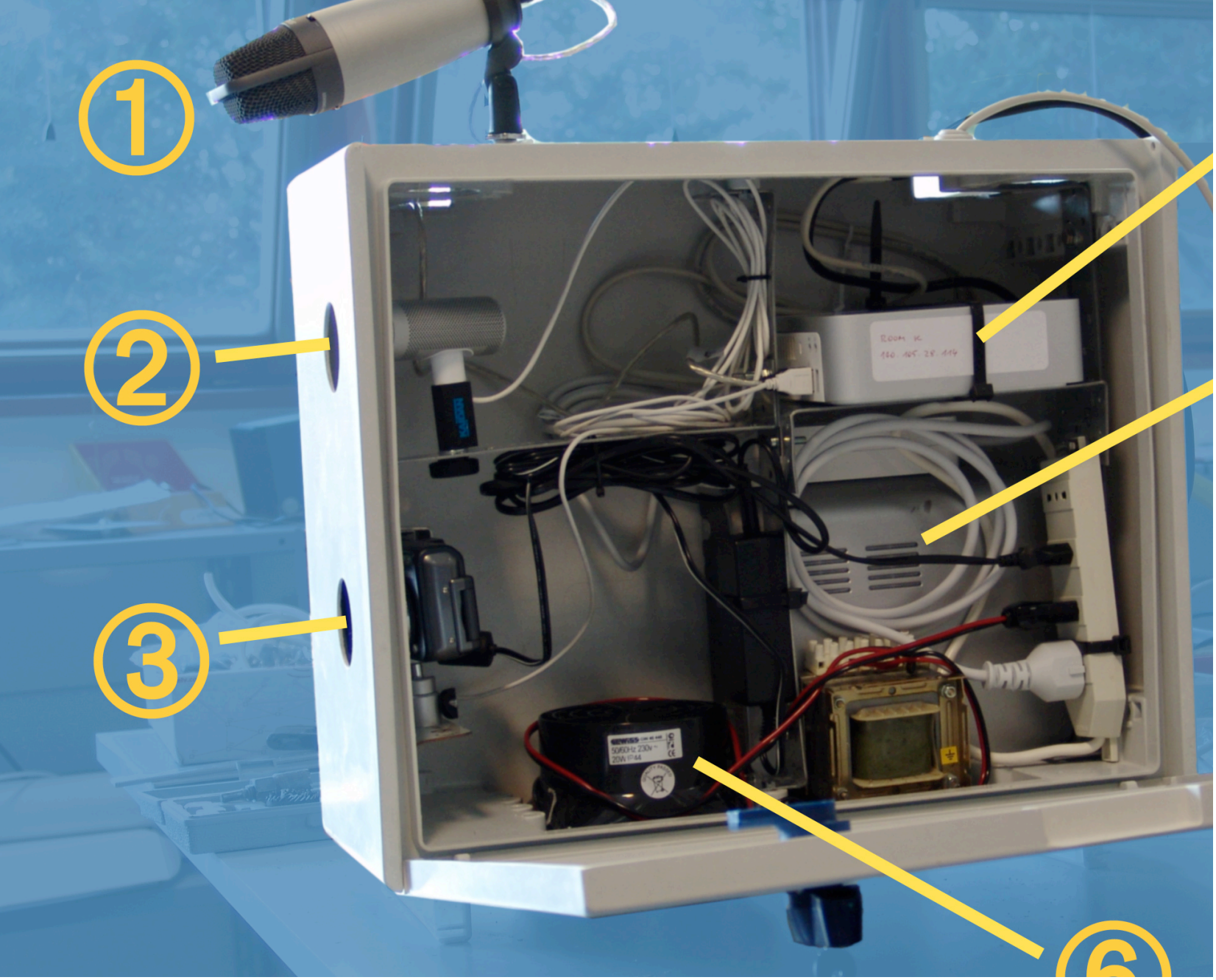
ave a Digital Lectures
em that has:

inimum human intervention

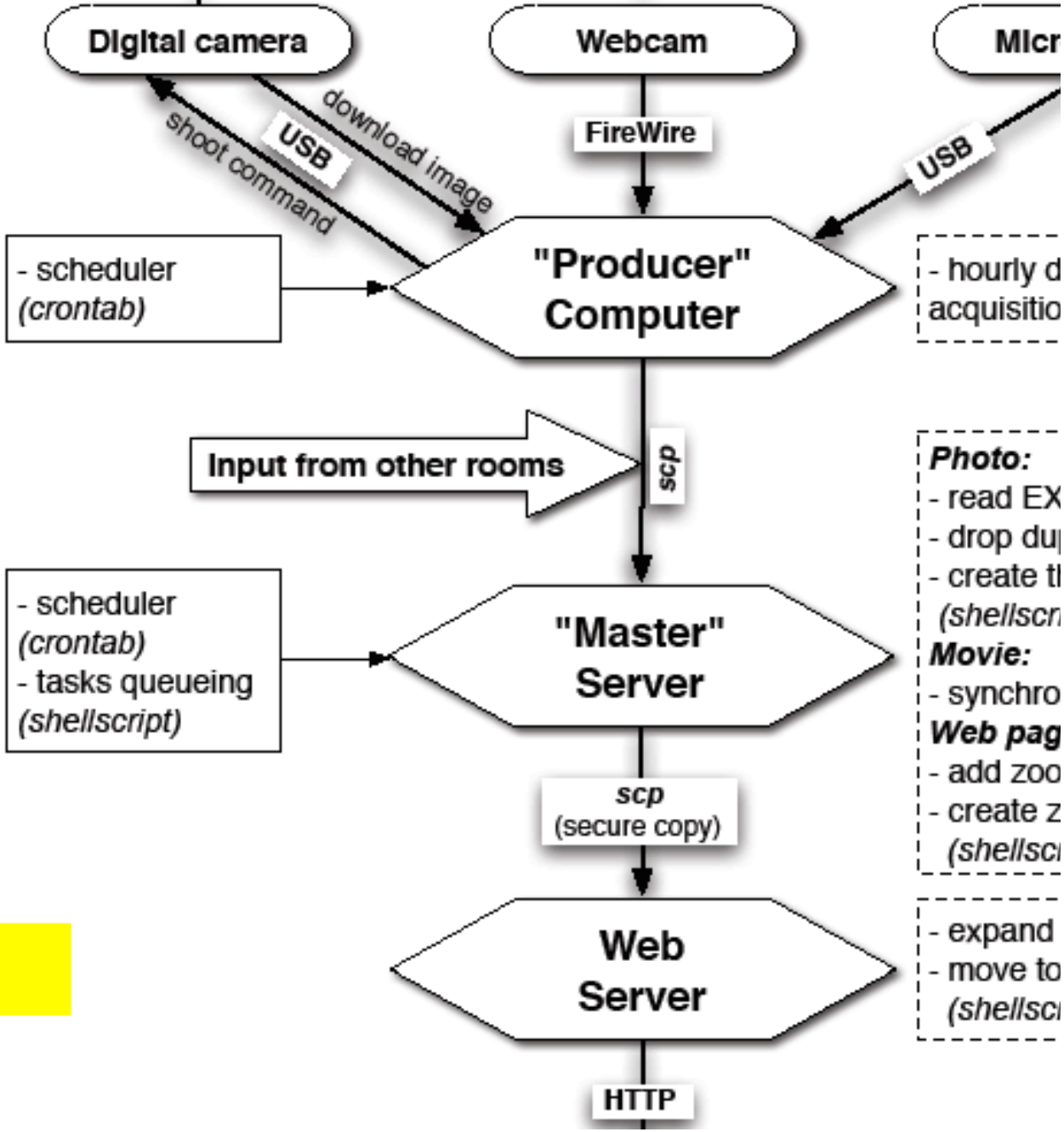
nvasive

cost of equipment

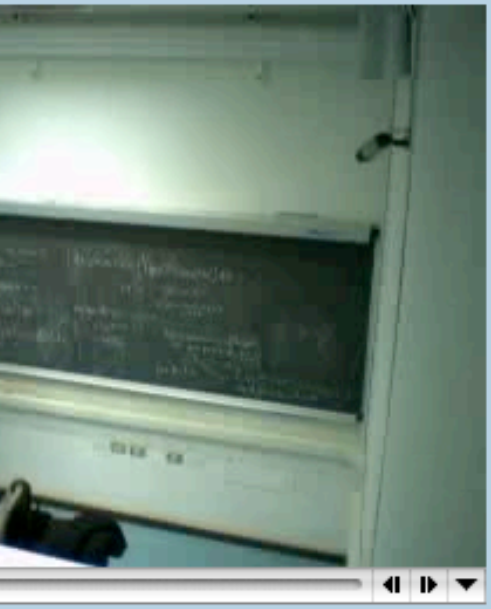
nuous service with minimal
tenance (massive
rdings along campus)


①
②
③
⑥

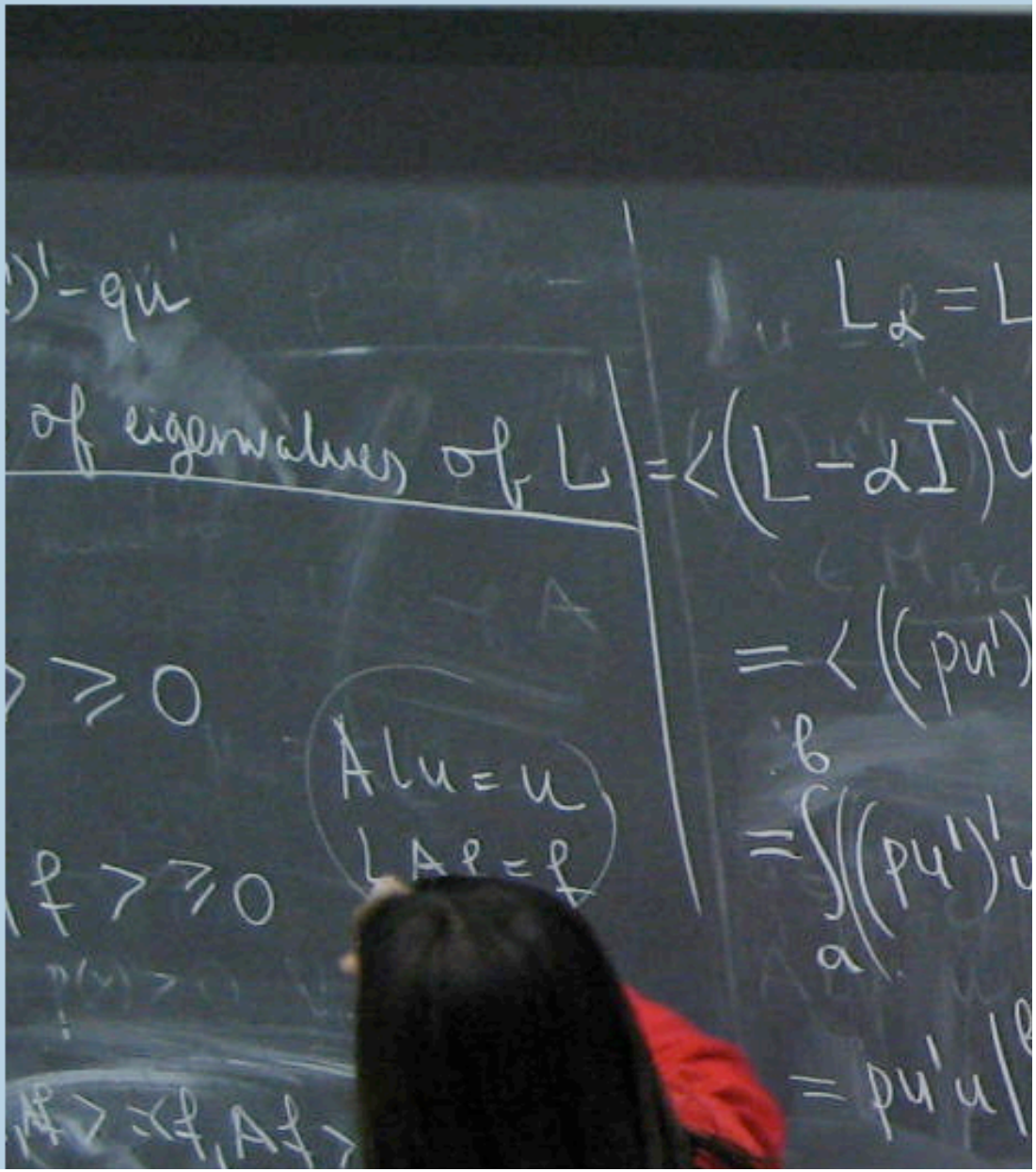
EyA System


Digital camera
Webcam
Micr
download image
shoot command
USB
FireWire
USB
- scheduler
(crontab)
"Producer"
Computer
- hourly d
acquisitio
Input from other rooms
scp
Photo:
- read EX
- drop du
- create t
(shellscr
Movie:
- synchro
Web pag
- add zoo
- create z
(shellsc
- scheduler
(crontab)
- tasks queueing
(shellscript)
"Master"
Server
scp
(secure copy)
Web
Server
- expand
- move to
(shellsc
HTTP

ording with synchronized slides



10:00-10:59



Thank you!