

Linear Collider Outreach

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Thanks to: Judy Jackson, Neil Calder

Outreach! why me?

‘Don’t we pay professionals to do this?’

Yes!

‘Wouldn’t they do it better than me?’

Possibly!

But: it’s our Linear Collider and each of us should be ready and willing

Coordination of International Outreach

Asia: Youhei Morita

Europe:

Philip Burrows

Francois Le Diberder

Giorgio Chiarelli

Michael Kobel

+ national reps.

North America:

Jim Siegrist

Stan Wojicki

Bill Carithers

Jon Bagger

April Burke

Pat Fulton

Judy Jackson

Sally Dawson

Neil Calder

Outline

- **Our community**
- **Our message**
- **Our tools**
- **Our image**
- **Some examples and suggestions**

Our community

Unprecedented level of support for LC:

- ICFA, ACFA, ECFA, HEPAP endorsement
- 2600 signed consensus document
- OECD ministerial group positive
- International funding agency meeting 6 April

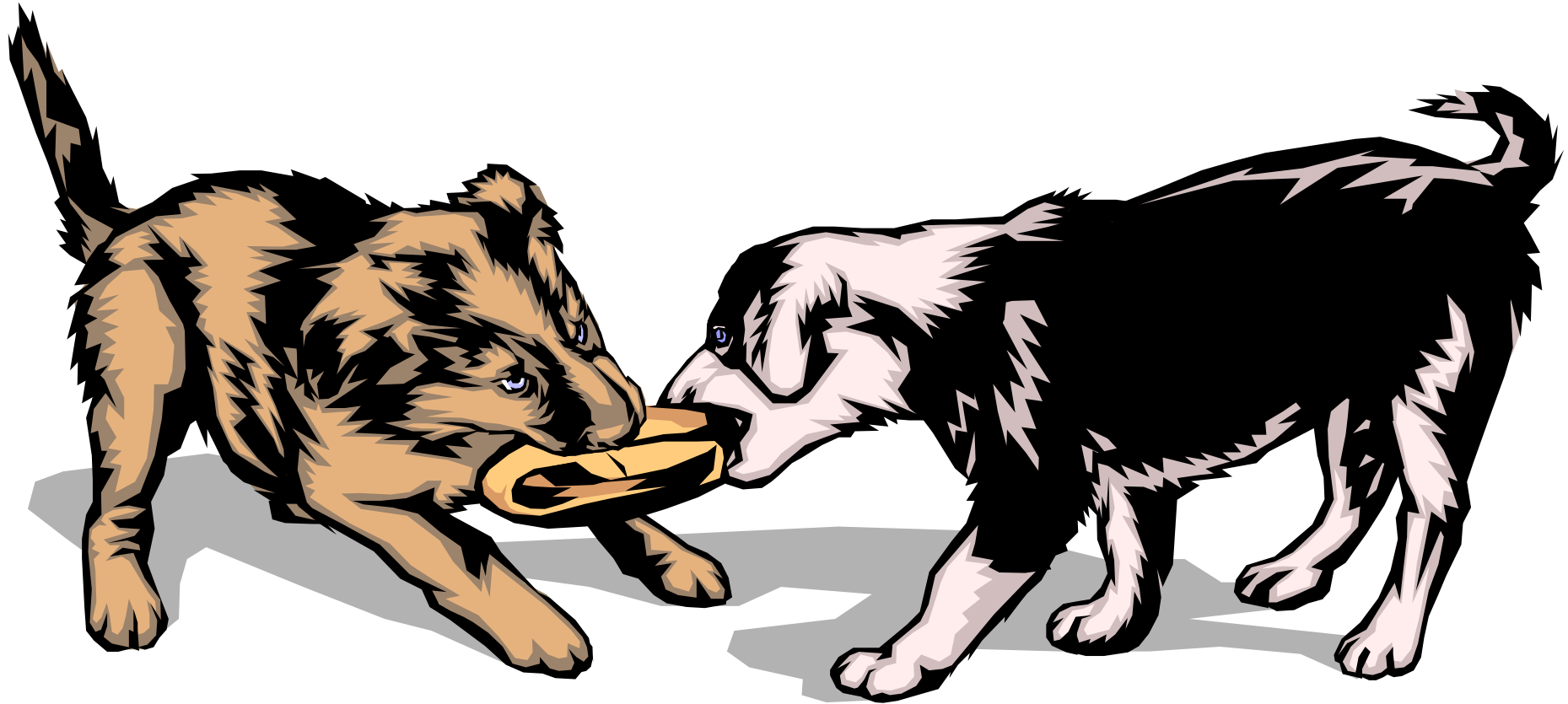
Our community

Essential and appropriate that we engage in scientific debate about future facilities

However, outside our laboratories, meetings, seminars, colloquia ...

we must speak with a unified voice!

Example of inappropriate behaviour!



Neil Calder

Philip Burrows

LCWS2004, Paris 22/4/04

Alison Wright ('Nature')

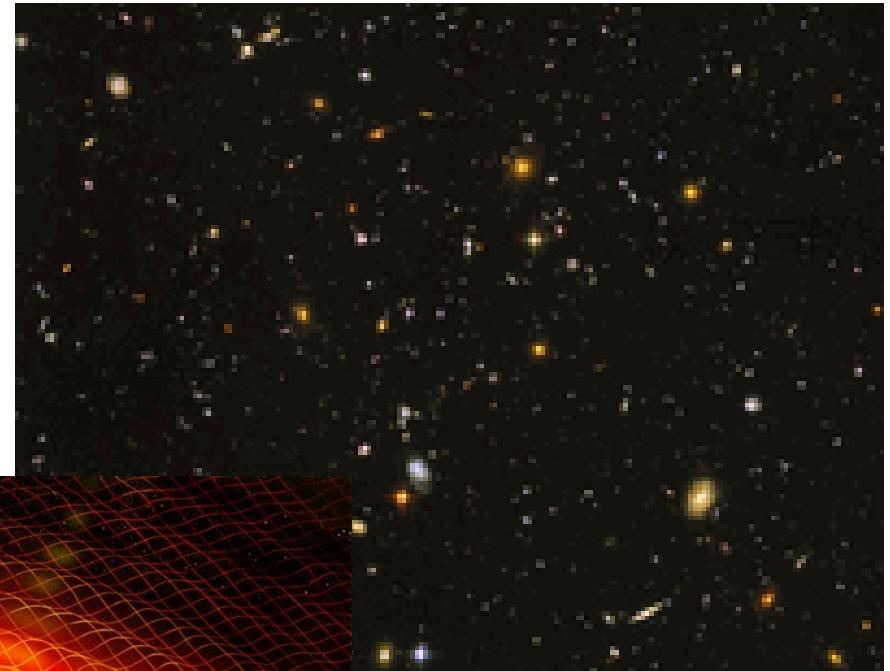
We are all impressed by the organisation and unity of the particle physics community ... by the consensus and momentum for LC

Other communities (biology ...) are amazed and impressed, but perhaps also slightly intimidated

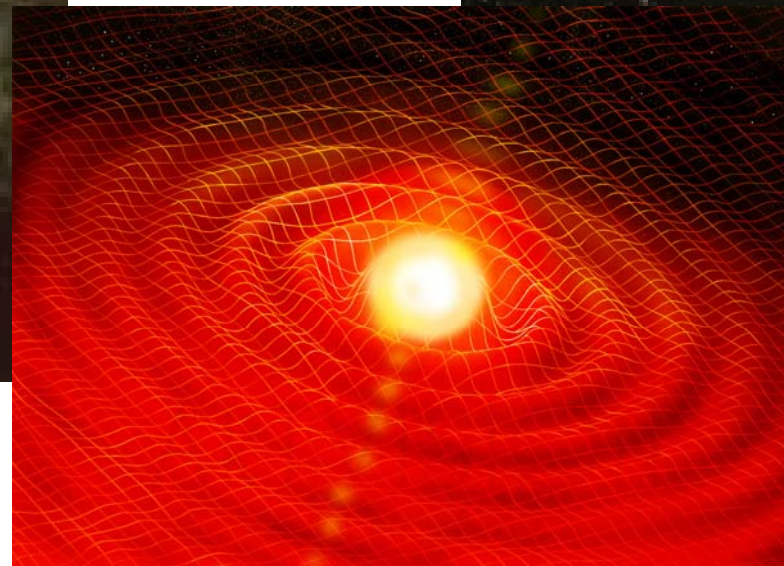
The public is fascinated by cosmic issues



NASA

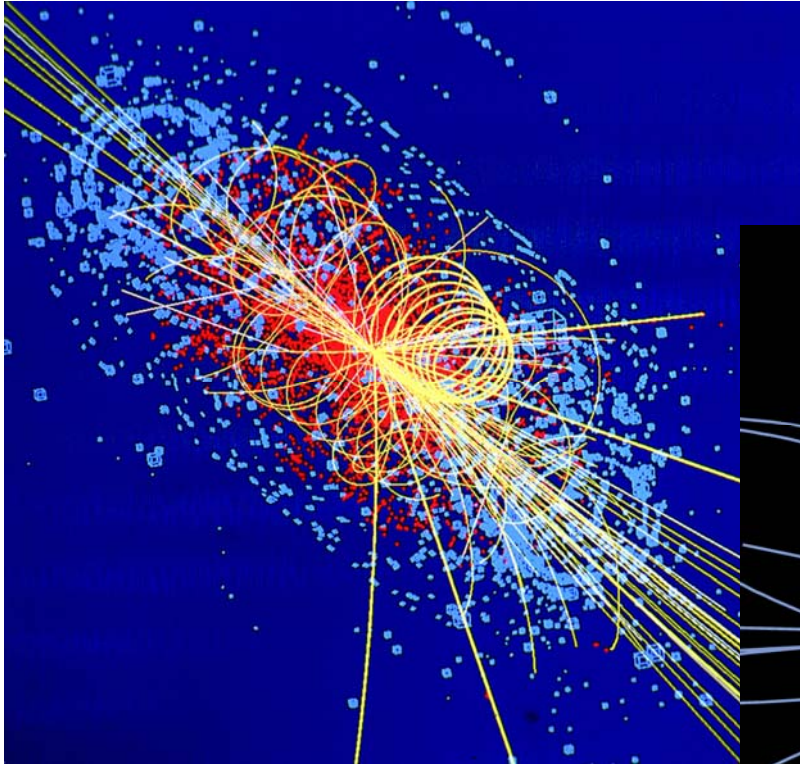


NASA



INFN

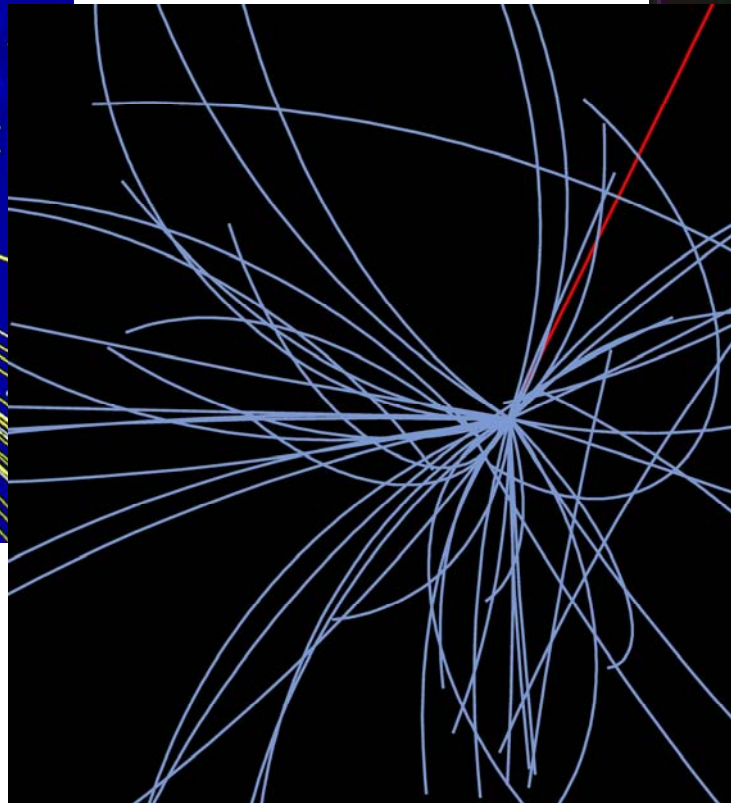
It's our universe too!



CERN/CMS



CERN/ALEPH



FNAL/CDF

To quote Neil Calder

Dark matter – wow!

Dark energy – totally awesome!

Extra dimensions – whoa!

Higgs bosons – wicked!

You've got 60 seconds ...



"6 billion bucks! What's this *thing* for?"

Neil Calder

A 60-second elevator speech

(after Neil Calder et al, SLAC, January 2004)

- **Revolution in our concept of the universe**
- **2003: precise measurements -> universe made of
5% atoms, 25% dark matter, 70% dark energy**
- **We only understand 5% of the stuff of the cosmos**
- **We are on the threshold of amazing discoveries**
- **We need a new instrument to probe the missing 95%**

A 60-second elevator speech (contd)

- That instrument is the Linear Collider
- Particle accelerator to make on earth new, exotic matter
- Will do precise experiments under controlled conditions
- This will attract and train the brightest young scientists
- The world's particle physicists are united behind this
- We want to build it as international project: share costs
- Our participation will keep our nation at the forefront of science in the 21st century

Our tools: interactions.org

‘To increase support around the world for fundamental physics research’

APS, ANL, RAL, LBNL, CERN, Cornell, DESY, Dubna, Frascati, FNAL, Gran Sasso, INFN, KEK, NIKHEF, Orsay, PPARC, Saclay, SLAC, TJNL, TRIUMF

Image bank, links,
+ news, press releases ...



The screenshot shows the Microsoft Internet Explorer browser window displaying the homepage of Interactions.org. The address bar shows 'www.interactions.org'. The page features a navigation menu on the left with links to News, Image Bank, Lab Links / Contacts, Policy and Funding, Publications, Conference Calendar, HEP Glossary, Education, About Interactions.org, and Contact Us. The main content area is titled 'INTERACTIONS.ORG HIGH-ENERGY PHYSICS NEWS AND RESOURCES' and includes a 'News' section with several articles, a 'Features' section with a link to the image bank, and a 'Subscribe' section.

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- News
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News

- 3/6/03 BBC News: [Net Speed Record Smashed](#)
- 3/6/03 News DESY: [Open Day at DESY](#)
- 3/6/03 Newswise - College of William and Mary: [Physicist's Research Reshapes Understanding of Protons](#)
- 3/6/03 Discovery Channel: [Study Predicts End of Universe](#)
- 1/30/03 BNL: [Dr. Praveen Chaudhari Named Director Of Brookhaven National Laboratory](#)
- 1/8/03 JLab: [Jefferson Lab technology, capabilities take center stage in construction](#)

Features

- Visit the Interactions online [image bank](#) -- featuring the finest images from HEP labs throughout the world!
- See a list of upcoming conferences on the Interactions.org [conference calendar](#).
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- Confused by a term or acronym? The Interactions.org online [glossary](#) has the answer!

Our Image 1

- interactions.org team agreed to join forces in preparing for the post- Technology Decision LC era:

share resources

common message

develop logo for the international LC project

- Proposal: set of (3?) LC posters: **physics**
accelerator
detectors

to be hung prominently outside YOUR office

Our Image 2

- **Worldwide LC outreach top page on interactions.org**
-> regional pages -> national pages
- **First port of call for news and outreach materials**
- **Professionally maintained**
- **Currently good U.S. page**
- **Hope to link to European, Asian pages**
- **Should be easier post- Technology Decision**
- **Task is a bit more complicated within Europe**

Outreach at this Colloquium

- **Consensus document formally released tomorrow (RH):**
press release from Worldwide Study via
interactions.org
- **Exhibition at Palais de la Decouverte:**
lecture/conference by Albrecht Wagner 14.30 Saturday
volunteers welcome to assist on Saturday

European Science Outreach Forum

(Stockholm, August)

- Proposed a colloquium **‘from quarks to galaxies’**:

Gerard t’Hooft: ‘The nature of matter and forces’

Licia Verde: ‘The Cosmic Connection: From Quarks to Galaxies’

Ulf Danielsson: ‘Spanning Time and Space of the Universe’

Ugo Amaldi: ‘From accelerators to cancer therapy’

Albrecht Wagner: ‘Pushing the Frontier: Tools for the next Decades’

- Hope for significant interest from science journalists, educators, funding agency staff, politicians

Other examples and suggestions

- UK Institute of Physics: 'physics update' workshop for high school teachers – 'doing science with accelerators'
- Particle physics 'masterclasses' for 16-18 year olds:
 - 18 UK universities, reach 2000 students/year**
- 2005: World Year of Physics:
 - essay + poster competition
 - everyone will win a poster, winners visit CERN**

Note that...

Few of these activities are focussed solely on the Linear Collider

Science

Physics

Particle Physics

Linear Collider

Industry Outreach

- **Politicians listen to industrialists**
- **Industrialists are often knowledgeable and supportive of science**
 - **they can be important allies**
- **Governments usually keen to support high-technology industries**
- **We should nurture this connection**

Your Linear Collider Needs You



Philip Burrows

LCWS2004, Paris 22/4/04