ming), O. Kärmer-Fuhrmann (Software Engineering), F. Kursawe (Evolutionary Algorithms), and M. Lades and E. Littmann (Neural Networks).

The workshop was held under the auspices of the European Physical Society and the German Physical Society with financial support from the Bundesminister für Forschung und Technologie (BMFT), Bonn, the Centre National de la Recherche Scientifique (CNRS), Paris, the Deutsche Forschungsgemeinschaft (DFG), Bonn, the International Science Foundation, Washington DC, the Minister für Wissenschaft und Forschung of Nordrhein-Westfalen, the Village of Oberammergau, and the University of Wuppertal. The proceedings will be published by 'World Scientific'.

From Karl-Heinz Becks, Wuppertal, and Denis Perret-Gallix, LAPP Annecy

ELASTIC SCATTERING How goes the Odderon?

Spurred by new measurements of total reaction rates and associated parameters by groups at CERN, DESY, and Fermilab, and with the scent of possible solutions to past controversies in the air, some 110 experimental and theoretical high-energy physicists gathered at Brown University (Providence, Rhode Island) for the fifth traditional 'Blois' Workshop on High-Energy Elastic and Diffractive Scattering.

Very much alive is the 'Odderon' - the extra effect to explain the difference between proton-proton and proton-antiproton scattering.

Just when the weight of the new UA4.2 measurements at CERN (December 1993, page 14) suggested a rapid burial, a new calculation reported by theoreticians Lipatov et al. argued that if the Pomeron exists then the Odderon should also.

Everyone believes in some version of the Pomeron to drive elastic scattering, but the attendees clearly reserved judgement as to whether the exchange of the Lipatov Pomeron (built out of two pairs of (Reggeized) gluons), or of a more traditional 'soft' Pomeron (built of nonperturbative quark-gluon effects) are the best ways of representing the scattering of two protons at extremely high energies.

New experiments at the HERA electron-proton collider at DESY, Hamburg, gave more examples of the ubiquitous pointlike structure appearing in parton distributions, and Pomeron-like structure when the struck parton carries only a small fraction of momentum (the small-x region).

Theoreticians turned phenomenologists presented satisfying descriptions of the experiments, but no one can yet discuss with any confidence quark-gluon behaviour not tied to a perturbation approximation. These subjects will remain objects of passion and prejudice until either experimentalists can rule out (or in!) certain effects with sufficient precision to exclude theoretical creations; or until theoreticians can arrive at nonperturbative quark-gluon solutions. One should not hold one's breath in the expectation of either event happening in the immediate future; the Odderon and the Pomeron will return.

From H.M. Fried, Kyungsik Kang, C-I Tan

WORKSHOP RICH people

When high energy particles travel through a transparent substance faster than the 'allowed' velocity of light, so-called Cherenkov radiation is emitted at an angle depending on the particle velocity, in much the same as a shock wave accompanies supersonic aircraft.

Knowing the momentum of the particle by tracking in the magnetic field, and measuring the Cherenkov angle of the emitted photons, the mass can be measured in a momentum range where no other technique is so useful.

This approach is called Ring Imaging Cherenkov (RICH) since the imaging of the radiation on a photosensitive plane perpendicular to the particle direction gives a ring whose radius increases with the particle velocity.

The technique was first suggested by A. Roberts in 1960, and the first prototype developed by J. Seguinot and T. Ypsilantis in 1977. Implementation is recent - SLD at Stanford (SLAC), Omega, CERES and Delphi at CERN.

To review the technique and look at future possibilities, a RICH workshop held last summer near Bari (Italy) examined -1) Status and prospects of running RICH devices; 2) New developments on photosensitive materials and detector systems; 3) Detector technology and electronics; 4) Pattern recognition techniques and data analysis for particle identification; 5) New concepts on the imaging of the Cherenkov light; 6) Proposals for future experiments.

After a historical survey by J. Seguinot, T. Ypsilantis gave a theoretical review of potential and limits. S. Swordy (Chicago) reviewed