

Contribution ID: 43

Type: Plenary Contribution

## What can be learned from light meson decays

Thursday, 13 October 2011 10:35 (25 minutes)

The WASA facility is a  $4\pi$  detector system, designed to study the hadronic production and the decays of light mesons. A high density pellet target combined with the high intensity beams of the Cooler Synchrotron COSY provide luminosities which allow studies of rare processes.

The WASA-at-COSY physics program focuses on the investigation of light meson decays with the aim of performing precision tests of Chiral Perturbation Theory and to scrutinize symmetries and symmetry breaking mechanisms in hadronic systems using rare decays. Additionally, hadron structure is studied through form factors. Contributions to dark matter searches are made by studying very rare leptonic decay modes of light pseudo scalar mesons.

The light meson decay program at the WASA facility at COSY will be outlined and some highlights of  $\pi^0$ ,  $\eta$  and  $\omega$  decay studies will be presented.

**Primary author:** Dr REDMER, Christoph Florian (Department of Physics and Astronomy, Uppsala Univer-

sity)

Presenter: Dr REDMER, Christoph Florian (Department of Physics and Astronomy, Uppsala University)

**Session Classification:** Hadron Physics III

Track Classification: Hadron Physics