

# Service de Physique Nucléaire



## Séminaire

le vendredi 10 octobre 2014 à 11h00

CEA Saclay, Orme des Merisiers, Bât. 703, Salle 135

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### Recent progress in understanding the nucleon sea

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The flavor asymmetry of nucleon light sea quarks has been experimentally confirmed. Nevertheless, the origin of this phenomenon is not completely understood. An interpretation of its connection with the five-quark components of the nucleon will be reported. Based on existing data of E866 and HERMES experiments, the probabilities of higher Fock states of nucleons are extracted[1-3]. Furthermore, the connected and disconnected sea according to the path-integral formalism of the hadronic tensor will be introduced. We demonstrate that these two components could be determined using the recent results from HERMES and lattice QCD calculations.

1. W.C. Chang and J.C. Peng, Phys. Rev. Lett. 106, 252002 (2011)
2. W.C. Chang and J.C. Peng, Phys. Lett. B 704, 197 (2011)
3. K.F. Liu, W.C. Chang, H.Y. Cheng, and J.C. Peng, Phys. Rev. Lett. 109, 252002 (2012)

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*Le café sera servi 10 minutes avant*

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