

List of Publications/Preprints

- [1] " *COSMIC STRING INDUCED SHEETLIKE BARYON INHOMOGENEITIES AT THE QUARK-HADRON TRANSITION* ",
B. Layek, S. Sanyal and A.M. Srivastava,
Phys. Rev. **D63** (2001) 083512.
- [2] " *BARYOGENESIS VIA DENSITY FLUCTUATIONS WITH A SECOND ORDER ELECTROWEAK PHASE TRANSITION* ",
B. Layek, S. Sanyal and A.M. Srivastava,
Int. J. Mod. Phys. **A18** (2003) 4851.
- *[3] " *BARYON INHOMOGENEITY GENERATION VIA COSMIC STRINGS AT QCD SCALE AND ITS EFFECTS ON NUCLEOSYNTHESIS* ",
B. Layek, S. Sanyal and A.M. Srivastava,
Phys. Rev. **D67** (2003) 083508.
- *[4] " *ISOCURVATURE FLUCTUATIONS THROUGH AXION TRAPPING BY COSMIC STRING WAKES* ",
B. Layek, Phys. Rev. **D71** (2005) 063527.
- [5] " *STRINGS WITH A CONFINING CORE IN A QUARK-GLUON PLASMA* ",
B. Layek, A.P. Mishra and A.M. Srivastava,
Phys. Rev. **D71** (2005) 074015.
- *[6] " *SKYRMION FORMATION IN (1+1)- DIMENSIONS WITH*

CHEMICAL POTENTIAL ”,

V.S. Kumar, B. Layek, S.Sanyal, A. M. Srivastava and V.K. Tiwari,
hep-ph/0401076 (Accepted for publication in Int.J.Mod.Phys. A).

[7] ” *EXCITED HADRONS AS A SIGNAL FOR QUARK-GLUON
PLASMA FORMATION* ”,

B. Layek, S. Sanyal and A.M. Srivastava,
hep-ph/0502109 (Submitted to J. Phys. G).

Conference Proceedings

[1] ” *BARYON INHOMOGENEITIES DUE TO COSMIC STRING WAKES AT
THE QUARK HADRON TRANSITION* ”,

B. Layek, **S. Sanyal** and **A.M. Srivastava**, Proceedings of ”International
Conference on Physics and Astrophysics of Quark-Gluon Plasma (ICPAQGP
2001)” , Jaipur, India, November 2001; Pramana **60** (2002) 997.

[2] ” *IMPLICATIONS OF COSMIC STRING INDUCED DENSITY
FLUCTUATIONS AT THE QUARK-HADRON TRANSITION* ”,

B. Layek, **S. Sanyal**, **A.M. Srivastava**, Proceedings of ”QCD-2002” , IIT
Kanpur, India, November 2002 ; Pramana **61** (2003) 1039.

[3] ” *BARYOGENESIS VIA DENSITY FLUCTUATIONS WITH A
SECOND ORDER ELECTROWEAK PHASE TRANSITION* ”,

B. Layek, **S. Sanyal** and **A.M. Srivastava**, Proceedings of ” IXth Interna-
tional Symposium on Particles, Strings and Cosmology (PASCOS'03)” , TIFR
Mumbai, India, January 2003 ; Pramana **62** (2004) 761.

[4] ” *STRINGS WITH A CONFINING CORE IN A QUARK-GLUON PLASMA* ”,

B. Layek, **A.P. Mishra** and **A.M. Srivastava**,
Proceedings of ” Vth International Conference on Physics and Astrophysics of

Quark-Gluon Plasma (ICPAQGP-2005)" , Kolkata, India, February 2005 ;
(To be published in *Journal of Physics : Conference Series*)

A (*) indicates papers on which this thesis is based upon.