



Center for the Topology and
Quantization of Moduli Spaces



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CTQM

NIELSEN LECTURE I

WHAT IS THE PROBLEM OF MASS FOR QUANTUM YANG-MILLS THEORY?

WEDNESDAY, 21 MARCH, 2007 AT 14:30 IN AUDITORIUM F AT THE DEPARTMENT OF MATHEMATICAL SCIENCES
FACULTY OF SCIENCE, UNIVERSITY OF AARHUS

ABSTRACT: The problem, mentioned in the title, is listed as one of the Millenium Problems by the Clay Mathematical Institute. To the wide mathematical audience it is much less known than the other six problems. I shall try to explain its formulation and argue that it deserves to be in this list.

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NIELSEN LECTURE II

THREE DIMENSIONAL KNOT-LIKE SOLITONS AND THEIR HYPOTHETICAL ROLE IN QUANTUM YANG-MILLS THEORY

THURSDAY, 22 MARCH, 2007 AT 14:30 IN AUDITORIUM F AT THE DEPARTMENT OF MATHEMATICAL SCIENCES
FACULTY OF SCIENCE, UNIVERSITY OF AARHUS

ABSTRACT: It is a general belief that, in Quantum Chromodynamics, quarks are connected by strings composed of Yang-Mills fields. A natural question is what happens to these strings if the quarks are absent, so we deal with pure Yang-Mills quantum theory. It is argued that among the variables, describing the Yang-Mills fields, there are those, corresponding to nonlinear systems, allowing the solitons to concentrate along closed knotted rings. These excitations could be the remnants of the QCD strings.

CTQM WILL HOST A RECEPTION AFTER NIELSEN LECTURE I

FOR FURTHER INFORMATION, PLEASE CONTACT
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