# math:percolation theory

January 8, 2024

# 1 F and M Theories as Gauge Theories of Area Preserving Algebra

## Hirotaka Sugawara

#### Metadata

ID: http://arxiv.org/abs/hep-th/9708029v1

UPDATED: 1997-08-06T05:05:39Z PUBLISHED: 1997-08-06T05:05:39Z

hep-th:: 9 pages, no figures

## Summary

F theory and M theory are formulated as gauge theories of area preserving diffeomorphism algebra. Our M theory is shown to be 1-brane formulation rather than 0-brane formulation of M theory of Banks, Fischler, Shenker and Susskind and the F theory is shown to be 1-brane formulation rather than -1-brane formulation of type IIB matrix theory of Ishibashi, Kawai, Kitazawa and Tsuchiya.

# 2 Codimension two lump solutions in string field theory and tachyonic theories

### Nicolas Moeller

## Metadata

ID: http://arxiv.org/abs/hep-th/0008101v1

UPDATED: 2000-08-11T22:16:32Z PUBLISHED: 2000-08-11T22:16:32Z

hep-th :: 10 pages, 6 figures

### Summary

We present some solutions for lumps in two dimensions in level-expanded string field theory, as well as in two tachyonic theories: pure tachyonic string field theory and pure  $\phi^3$  theory. Much easier to handle, these theories might be used to help understanding solitonic features of string field theory. We compare lump solutions between these theories and we discuss some convergence issues.

# 3 A General Framework for the Semantics of Type Theory

### Taichi Uemura

#### Metadata

ID: http://arxiv.org/abs/1904.04097v3 UPDATED: 2023-05-26T15:49:35Z PUBLISHED: 2019-04-08T14:37:59Z math.CT::

## Summary

We propose an abstract notion of a type theory to unify the semantics of various type theories including Martin-Löf type theory, two-level type theory and cubical type theory. We establish basic results in the semantics of type theory: every type theory has a bi-initial model; every model of a type theory has its internal language; the category of theories over a type theory is bi-equivalent to a full sub-2-category of the 2-category of models of the type theory.

# 4 Matrix String Theory As A Generalized Quantum Theory

# Djordje Minic

#### Metadata

ID: http://arxiv.org/abs/hep-th/9705126v1

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hep-th :: 15 pages, TeX

## Summary

Matrix String Theory of Banks, Fischler, Shenker and Susskind can be understood as a generalized quantum theory (provisionally named "quansical" theory) which differs from Adler's generalized trace quantum dynamics. The effective Matrix String Theory Hamiltonian is constructed in a particular fermionic realization of Matrix String Theory treated as an example of "quansical" theory.

# 5 Building pretorsion theories from torsion theories

## Federico Campanini, Francesca Fedele

#### Metadata

ID: http://arxiv.org/abs/2310.00316v2 UPDATED: 2023-11-08T16:05:09Z PUBLISHED: 2023-09-30T09:11:00Z

math.CT::

## Summary

We propose two ways of obtaining pretorsion theories starting from torsion theories. The first one uses "comparable" torsion theories, while the second one extends a torsion theory with a Serre subcategory. We provide several applications in module categories, internal groupoids, recollements and representation theory.

# 6 Tractability of Theory Patching

## S. Argamon-Engelson, M. Koppel

#### Metadata

ID: http://arxiv.org/abs/cs/9803103v1 UPDATED: 1998-03-01T00:00:00Z PUBLISHED: 1998-03-01T00:00:00Z

cs.AI :: See http://www.jair.org/ for any accompanying files

## Summary

In this paper we consider the problem of 'theory patching', in which we are given a domain theory, some of whose components are indicated to be possibly flawed, and a set of labeled training examples for the domain concept. The theory patching problem is to revise only the indicated components of the theory, such that the resulting theory correctly classifies all the training examples. Theory patching is thus a type of theory revision in which revisions are made to individual components of the theory. Our concern in this paper is to determine for which classes of logical domain theories the theory patching problem is tractable. We consider both propositional and first-order domain theories, and show that the theory patching problem is equivalent to that of determining what information contained in a theory is 'stable' regardless of what revisions might be performed to the theory. We show that determining stability is tractable if the input theory satisfies two conditions: that revisions to each theory component have monotonic effects on the classification of examples, and that theory components act independently in the classification of examples in the theory. We also show how the concepts introduced can be used to determine the soundness and completeness of particular theory patching algorithms.

# 7 Gauge theories on noncommutative spaces

#### Albert Schwarz

#### Metadata

ID: http://arxiv.org/abs/hep-th/0011261v1 UPDATED: 2000-11-29T00:36:51Z

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hep-th ::

## Summary

I review my results about noncommutative gauge theories and about the relation of these theories to M(atrix) theory following my lecture on ICMP 2000.

# 8 A Map between (q,h)-deformed Gauge Theories and ordinary Gauge Theories

### L. Mesref

#### Metadata

ID: http://arxiv.org/abs/hep-th/0309268v1

UPDATED: 2003-09-30T18:06:05Z PUBLISHED: 2003-09-30T18:06:05Z

hep-th:: 8 pages

### Summary

We introduce a new map between a (q,h)-deformed gauge theory and ordinary gauge theory in a full analogy with Seiberg-Witten map.

# 9 The Spectral Theory of Tensors (Rough Version)

# Liqun Qi

#### Metadata

ID: http://arxiv.org/abs/1201.3424v1 UPDATED: 2012-01-17T04:15:33Z PUBLISHED: 2012-01-17T04:15:33Z math.SP::

## **Summary**

This is a survey of the spectral theory of tensors.

# 10 Classifying Types

# Egbert Rijke

#### Metadata

ID: http://arxiv.org/abs/1906.09435v1 UPDATED: 2019-06-22T11:42:13Z PUBLISHED: 2019-06-22T11:42:13Z

math.LO :: PhD thesis

# Summary

The study of homotopy theoretic phenomena in the language of type theory is sometimes loosely called 'synthetic homotopy theory'. Homotopy theory in type theory is only one of the many aspects of homotopy type theory, which also includes the study of the set theoretic semantics (models of homotopy type theory and univalence in a meta-theory of sets or categories), type theoretic semantics (internal models of homotopy type theory), and computational semantics, as well as the study of various questions in the internal language of homotopy type theory which are not necessarily motivated by homotopy theory, or questions related to the development of formalized libraries of mathematics based on homotopy type theory. This thesis concerns the development of synthetic homotopy theory.