On the sequestered Gabor Fekete model, an uplifted nilpotent 12d superconformal sequence compactification

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October 27, 2015

Abstract:
As indicated in the seminal work of reformer physicist G. Fekete all natural constants can be derived at least to eight digit accuracy. In this work we show that his model can in fact be understood by membrane lattices in string theory. More specifically fibred non-trivial conformal algebraic varieties sequenced of super-Hirzebruch curves that approximate Maxwell-Enriques surfaces. We propose the structure of the Fekete matrix to be parametrised by all possible toric condensates. By analytic continuation we extend our result N=pi supersymmetry on a sphere. Thus the only physical sense to understand the Fekete model is through radiative fluxes in superstring theory.

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1 Introduction

Natural constants [1] are of utmost importance to physics [1] and science in general. After the seminal works [1], finally string theory provides us with the means to understand them fundamentally, via analytical truncations of the Gabor Fekete model. Orientifolded orbifolds induce moment maps of differential sheaves. Based on this we use arguments from nonlinear fluid dynamics, projected on weighted projective spaces, to find unique maps between $\mathcal{N} = j$ supersymmetric theories, where j is irrational, and the Fekete endomorphism hinted at in [1]. Similarly, models of assisted inflation [2] can be built from the same principle, once backreactions of the twisted ambient space are taken into account. The same applies to strongly coupled systems with Seiberg-Stiefel symmetries, as recently proposed using colored box graphs in [3]. We hope that this work is a first step towards an ultraviolet embedding of the Fekete model.

2 Membrane Contributions

Dissolving the Q-brane into the lattice elevates the dipole moment of the spin $\frac{5}{2}$ fermion $\chi[;2]$, contrary to folklore theorems about semi-classical multiparticle systems. This contribution would violate the strong bounds on He^6 in early universe. Since any background dependence would leave a relic abundance of dark matter in the supersonic regime, the brane has to admit a $Sp(n)$ structure. Choosing the canonical basis for the symplectic $\Xi_\dagger$-operators, no renormalization of the brane charge occurs, as seen from the q-deformed exact sequence [1]

$$0 \neq A \xrightarrow{q} E_{6|6} \longrightarrow \mathcal{O}(\frac{x}{x-\pi}) \longrightarrow 0\,. \tag{2.1}$$

Intuitively, the even points of the lattice corresponds to the symmetric reduction along the brane, and will *not* receive any quantum corrections when uplifted to the 12D theory. This underlies the decimal precision we achieve and is clear from (2.3). Mathematically, an inverted form of Bott periodicity is employed to exclude all reciprocal points detrimental to the duality.
The expansion of the $\chi[;2]\chi[;2]a(y)$ coupling at any lattice points give rise to only three marginal terms. All higher order contributions are regular, and can be mapped into the ring of quivers by a large gauge transformation. This makes the coupling a quadratic form, valued in the algebra spanned by $\Xi^i_\dagger$. This algebra is abelian, and thus the Euler quadratic mean distortion applies. Dropping all total derivative terms, the Lagrangian

$$\mathcal{L} = \frac{1}{4\pi^2} D^2 a(y) D_\nu a(y') - m_\chi^2 a(y)^2\,, \qquad y \geq y' \tag{2.2}$$

is to be added to the action. The first excited mode of $a(y)$ is the quasi-particle that drives the Cauchy series to arbitrary good precision. Note however, that it is the fact

[1] The immersion of the cotangent bundle is implied

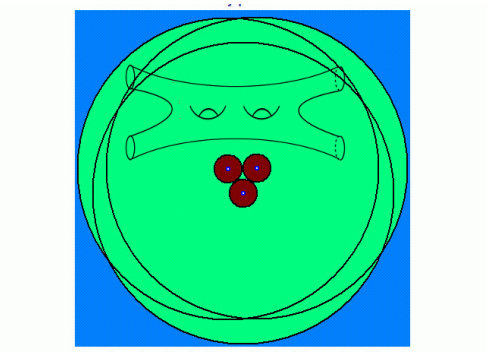

Figure 1: Schematic illustration of how the Fekete algorithm is related to 2-loop string scattering amplitudes.

that Q lives in a lattice that allows *in principle*, more than 9 digits of precision of any set of natural constants, that can be simultaneously set to one.

$$\begin{array}{ccccccc}
 & & \Xi & \xrightarrow{(\nabla+\psi)} & \int \mathrm{ch}_1(\chi) & & \mathbb{P}_+ \\
 & & & \begin{pmatrix} 0.11350 \\ \pi \\ 5.11093 \end{pmatrix} & & & \\
 & \begin{pmatrix} \alpha_{\text{Fek.}} \\ M_{\text{Planck}} \\ \pi \end{pmatrix} & \oplus & & \oplus & 2^\dagger & \\
\prod_i \theta_i \xi_j & \longrightarrow & \Psi^{\oplus 3} & \xrightarrow[X_1]{} & \sigma^\nabla & \xrightarrow[\text{Fekete endomorph.}]{} & \aleph_0 \qquad \overline{\mathbb{F}}_{12} \\
 & & \otimes & & \otimes & & \\
 & 1 & & (\int x 5^{\dagger\dagger} - 1) & & & \\
 & & \mathcal{GF} & \xrightarrow[\zeta_{0.1325235}]{} & \mathbb{N} & & \mathfrak{LT}_-
\end{array} \tag{2.3}$$

Eq. (2.3) depicts the meromorphic mapping cone between the sequence compactification and the sequestered Fekete model. The commutativity of this diagram follows from empirical data. $\alpha_{\text{Fek.}}$ denotes the vacuum expectacion value of the newly proposed spin-$\frac{7}{3}$-quasi-particle, the feketon. Its value is of course determined by the eigenvalue spectrum of the Fekete information-matrix, as hinted at already in 2002 in [1].

3 Conclusions

After the impressive failure of recent observations of neutrino oscillation, there is a need for a more fundamental understanding of the universe. Following [1] we have tried to implement this understanding in compactifications of string theory. Dynamical triangulations of antisymmetric tensor manifolds provide us with details previously

only accessible in the classical limit [1]. Our results can be summarized as follows: The introduction of a new spin-7/3 quasi-particle, the feketon, allows for the sequestering of otherwise unsequestered Koszul complexes. On the mirror-dual side, this corresponds to non-trivial uplifts of new representations of the four-dimensional effective Poincare symmetry. Finally, the Fekete model can be obtain on both sides by truncating all fibred curves on a sphere with trivial Kac-Moody map. This provides a simple introduction to sheave cohomology on complex manifolds, and is more accurate than previous attempts to calculate the values of frequencies and other natural constants. Furthermore, are results have been verified by numerous observations. In conclusion, the Fekete model proves the validity of superstring theory.

4 Acknowledgments

We thank Prof. T. Ericson for highlighting the works of G. Fekete which are in many ways instrumental to our setup.

References

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