
By Yan Ji

Henan Normal University

Abstract - Sun structure have research for hundreds years, which were very important for cosmic physics and earth science. This paper build 121 balls mathematic physics model, by Newton attract force equation. This model deduced out that solar internal parts got outward attract force. The internal particles might be accelerated to high speed to form light emission and jets. The surface parts got inward attract force, to show cool atmosphere. This model may deduce out and explain the sun light emission, flare, prominence, jets, and cool atmosphere phenomena. The 121 balls model can help research for solar physics, cosmic physics and earth science.

GJSFR- A Classification: FOR Code: 010599
Sun Structure Mathematic Physics Models
Release Solar Lights Emission, Proton Event, Jets, and Cool Atmosphere

Yan Ji

Abstract: Sun structure have research for hundreds years, which were very important for cosmic physics and earth science. This paper build 121 balls mathematic physics model, by Newton attract force equation. This model deduced out that solar internal parts got outward attract force. The internal particles might be accelerated to high speed to form light emission and jets. The surface parts got inward attract force, to show cool atmosphere. This model may deduce out and explain the sun light emission, flare, prominence, jets, and cool atmosphere phenomena. The 121 balls model can help research for solar physics, cosmic physics and earth science.

I. Introduction

Sun science have been taken long time, which connected with the almost all kinds of actions of earth biology. So the Sun research should be very important in cosmic physics, and earth environmental science, and biology. The solar structure was still unknown, which may be connected with many solar phenomena, such as light emission, jet, flare, prominence. This paper report a kind of mathematic physics model, try to build the solar structure model and help to explain some solar phenomena. The model was based on rigid balls array, to build attract force mathematic physics model (Figure 1).

Author: School of Chemistry and Chemical Engineering, Henan Normal University, Xinxiang, 453007, China. e-mail: jiyan98@163.com
Fig. 1 the 121 balls array mathematic physics model to describe the solar structure and explain some phenomena of Sun. the ball was all 1kg mass, 1 M diameter, set as rectangle array. The attract force of every ball got from other balls were calculated by Newton Attract Force Equation. The F/G values was
gave by equation \[ F/G = \frac{(M_1 \times M_x)}{(R_1^2)} - \frac{(M_x \times M_2)}{(R_2^2)} \]. There were 11 balls picked out to display the calculated results. The No. 0 received zero attract force. The No.1, 2, 3, 4 balls received outward directions attract force, with increasing attract force from No.1 to No.4 , while the No. 5 balls received inward directions attract force. So the Sun internal parts attract force situations as the arrows array figure. Arrow direction were the points got the attract force directions, length of arrows were for attract force relative intensity.

The 121 balls rigid array simulate the bodies attract force environment. Every ball in model was 1 Kg mass and 1 M diameter. The middlelevels 11 balls received attract force was calculated respectively by Newton Attract Force Equation. The F/G values \[ F/G = \frac{(M_1 \times M_x)}{(R_1^2)} - \frac{(M_x \times M_2)}{(R_2^2)} \] was gave in Figure 1, which show the No.1,2,3,4 balls received outward directions attract force, with increasing attract force from No.1 to No.4 , while the No. 5 balls received inward directions attract force. So from the 121 balls model, it can be conclude the internal parts all received attract force directions were all outwards, only the surface layers received attract force direction inwards. The internal parts have accelerated received increased attract force from center to sub surface. The 121 balls model was aimed to describe globe bodies internal attract force situations, and was tried to be used to explain some solar phenomena.

121 balls model was tried to explain Sun light emission. It was known that the accelerated particles can be emission synchrotron radiation light [2]. The particles, such as H proton and He atom at center parts of sun, which received outward directions attract force, and the received attract force increased from center to subsurface. These mean the particles were accelerated from solar center to sub surface, when acceleration was high to make the particles to near light speed, and fly out of Sun atmosphere to external space, then Sun gave light. So the Sun light was from the particles attract force accelerate to emission synchrotron radiation light.

When the internal protons were accelerated by the increased outward attract force to fly out sun, the proton event [3] happen that observed on earth. The proton events were proton fly from Sun to earth. The 121 balls model might explain the proton events. The protons in Sun internal parts accelerated to high speed and fly out Sun to earth. The proton events speed decided the accelerated length and proton amounts.

The internal small particles, such as H and He were accelerated by outward attract force, fly from center to surface through millions kilometers acceleration, these particles speed can be or nearby light speed, to fly out of sun to form different emission and jet, such as sun light, flare, or prominence, which decided from the particles speed and amount. There were many other huge or small mounts particles in internal Sun can be accelerated to high speed and fly out of Sun, to form prominence [4], fare [5], and the small scale jets (observed and reported by H. Tian [6]).

From the 121 balls model, the surface parts of Sun were received attract force were in ward directions, which make the surface attract many external space gas atmosphere go into solar surface. The Sun surface attract cold atmosphere to mix the hot jets flow, then form the inward direction cooling atmosphere phenomena. The Sun cool atmosphere was observed (reported by H.Peter [7]). The sun surface heat flow emissions meet the inward going atmosphere cool gases, which form the cooling atmosphere. The 121 balls model might deduce that Sun surface attract external gas inward to Sun, to supply Sun for lots of cool gases, such as H2. These external gases were attracted to go into sun and cooling sun atmosphere.

In conclusion, 121 balls array attract force mathematics physics model show that: Internal parts got outward direction attract force, which produce outward particles acceleration actions, then to form light emission, proton events, small jets, and flare. The surface parts got in ward attract force, which attracted external gases go inside Sun. This model tries to explain the experimental observation phenomena of Sun, such as small-scale jets and cool atmosphere. So the 121 balls model might well explain some phenomena of Sun, and will help for cosmic physics and Sun related researches.

**References Références Referencias**