The dark matter as miscalculations

A short-representation

worked out from: Dipl. Ing. Matthias Krause Kirchzarten, den 3.2.2006 (last change 22.3.2006)

Translated by Sylvia Best

Objective

This essay shall the facts belonging to the topic in preferably grabbed form from the gone ahead works [1,2 3] represents and expounds. Two different calculation-possibilities of the gravity-field are looked at to it in the galactic disk. The results (masses M, radiuses r, strength F and circulation-speeds v) of the two calculation-possibilities are compared and are discussed.

Calculation, that is used for the calculation of the masses and circulation-speeds since Newton in the galactic disk and that led to the assumption of the dark matter in her/its/their results, is about the integral.

On the other hand a discreet calculation should be executed in order to check whether the discreet calculation leads to comparable results.

[1] „ Das Mehrkörperproblem in der Berechnung einer Galaxie und der Virialsatz und seine Anwendung“ M. Krause 3/2005

[2] Der Vergleich von integraler und diskreter Berechnung bei der galaktischen Massenbestimmung.“ M. Krause 3/2005

[3] „Die Gravitation in einem kugelförmigen Körper und in einer Fläche. M. Krause 6/2005

1. Basic to the calculation

The calculation of the strengths, masses and circulation-speeds in the galactic surface always is a many-body-problem since a galactic surface is composed from thousand of suns and other masses.
There are two possibilities to execute a gravity-calculation in a galactic, surface-shaped body.

1.1 The centre-referential, integral calculation-manner, that works only with the inner-masses. (Through Isaak Newton introduced and at present at the the most frequently used calculation-plan.) Only the masses of the galactic surface are admitted to the calculation and to point-masses, that lie within the visual track of the in each case viewed mass-point P around the galactic centre, condensed.

1.2 The discreet one, measure-point-related calculation is realized by numerous singles-calculations with a model-file at the PC, in which the masses of the plain are rastered. The singles-calculations then become condensed in this model-file and converted into the respective parameters (mass, circulation-speed and radius). Is used, differently than with the integral calculation, in this model all singles-masses of the rastered plain, as well as the inner - also as the outside-masses of a track lying by the at looked point P. The discreet calculation takes place at a galactic surface-model, that is built rotation-symmetrically and contains altogether 357 mass-points as screens for the surface (plain). Originating from the centre, there are 10 measuring-points as far as to the edge.

It is expected that both calculation-methods of the model deliver comparable results. View and the two different calculation-possibilities are compared at her/its/their results.
A certain deviation from the results is expected through the discreet calculation (scanning) that this deviation clearly should be in the low one-digit percent-area (ca.1%) as tolerance, however.

2. The calculation of the gravity in the centre-referential, integral Calculation-manner after Newton showed by “Alonso & Finn" [4]

All formulas, that involve the gravity, always are exactly taken applicable to point-masses and not for surfaces or volume-masses. Even Newton was for itself because of these questions whether point-masses and volume-masses can immediately be treated, not certainly and postponed his/its publications over the gravity by soon two decades. Only as he/it published an explanation, over which integral calculus had found, he/it his/its work. The attraction between the masses is calculated with the formula

$$F = \frac{\gamma \cdot m \cdot M}{r^2} \qquad \textbf{(F 1)}$$

All formulas are valid, that involve the gravity. under conditions of the rotation-symmetry - for both point-masses and for spherical bodies. Spherical bodies can be regarded as point-masses when only the masses are taken into account in the bill, that lies within a (the gravity compensating for) orbit of the point P. The masses outside this orbit don't find any consideration with the calculation.

M and r are aground with it and always refer to the centre of the circle-surface. You/they can be appointed to the calculation of F and v.

For extensive mass-accumulations, the formulas are also used since one assumes comparable circumstances between surface and ball.
The circulation-speed of a mass calculates after the formula:

$$v = \sqrt{\frac{G \cdot M}{r}} \approx \frac{1}{\sqrt{r}} \qquad \textbf{(F 2)} \qquad \textbf{Formula for Masso} \ [5]$$

Through rearranging by M, we get

[4] German setting: M. Alonso / E.J.Finn, physics 3. Edition (2000) Oldenboerg publishing house /S. 318 ff the gravity of a spherical body

[5] Masso, Eduard 1995; Brayonic Dark Matter; Theory and experiment S. 2
http://www.arxiv.org /astro-ph/pdf9601/9601145.pdf

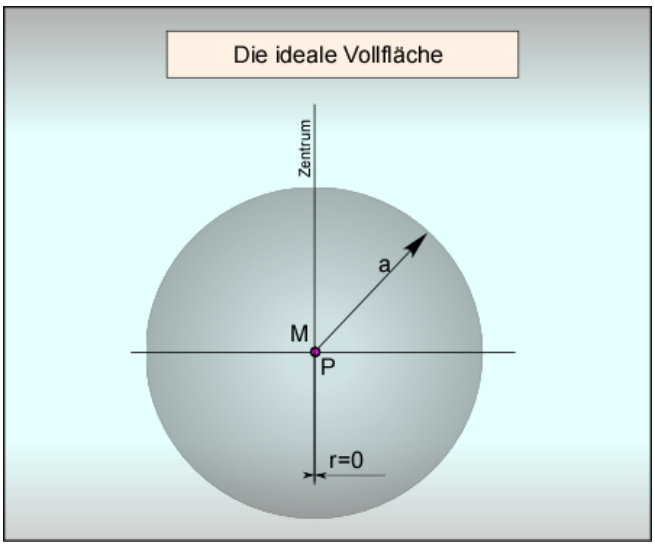
$$M = \frac{v^2 \cdot r}{G} \qquad \textbf{(F 3)}$$

The circulation-speed of the individual masses in the galactic surface, after often carried out measurements, is virtually constant. With it, that the mass M, with unchanged speed V, only changes through the radius, is obvious. With v = steadily is valid: If the radius is changed from 1 to 10, so also the mass M changes on the 10-inflames value.
The measured circulation-speeds in the galactic surface are virtually steadily with 225 km / sec. from the centre away as far as to the visible edge and also in addition. With constant circulation-speed, however, the mass then must increase in the galaxy also with increasing radius of accordingly above formula.
In the contradiction to it, however, she/it decreases in the visible area of the centre as far as to the edge of the galaxy, therefore another mass is logical, over the visible mass out, necessary, in order to guarantee the galactic circulation-speeds, and, to explain.

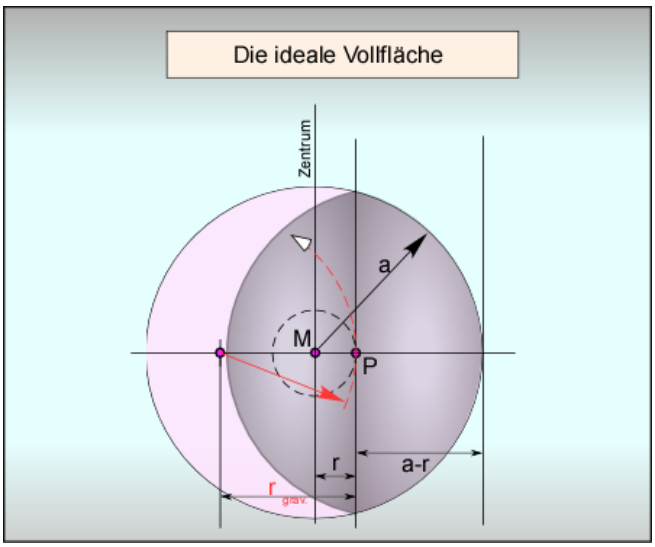
Alone this led to the acceptance of an until now invisible dark matter.

3. The calculation of the gravity in the measuring-point-referential, discreet calculation-manner

To the discreet rake-manner, fundamental considerations are to be employed, from which a new base becomes obvious. It is assumed that in the centre of a surface-shaped one, point-symmetrical body's the gravity itself doesn't have sensed. (Therefore, it is lifted.)



Represented graphics *1 surfaces as a supervision. The gravity is in the centre of a homogeneous massive surface = 0*
The mass-distribution in this round surface is homogeneous. They the centre of surrounding masses of the surface then cancel in her/its/their gravitativen effect, if she/it, from the centre viewed, itself equally-far, equally-heavily and exactly inversely is opposite. It follows that the point P in the centre of a round surface finds out a gravity-effect, that cancels mutually in her/its/their result.
If one applies this fundamental realization consistently in the further contemplation and discreet calculation, so following strength-effect emerges for a point P outside the middle of the circle with, opposite the integral calculation-method, altered radiuses and masses.



Graphics 2
If one lets P from the centre of the surface now hike to the edge, so the annulment of the gravity even then remains gotten for all P of surrounding masses, as long as equally-far itself masses and opposite from P decides. P then lies in the centre or in the centre of a more or less lentil-shaped, point-symmetrical surface in which all masses cancel in her/its/their gravitativen effect with reference to P. From the massive total-surface remains after departure of the lentil-shaped surface only a stale - or sickle-shaped surface, that works gravitativ on point P.

That is the serious contrast to the integral calculation-method where the radius only refers r to the centre of the circular total-surface for itself. Now, however, this radius can r for the gravitative calculation, that on P of working strengths, no more relevant is. Also the mass M of the now insignificant becomes “inner circles" from the integral, centre-referential calculation, is different from the mass of the peel-shaped rest-surface. The radius r and the inner-circle-masses M, strengths are completely in the area of the gravitativen mutually lifting itself and these two values from the integral calculation are insignificant for the discreet surface-calculation with it.

Masses know no integral-formulas but only strengths, that effect her/it/them in a certain distance.

The radius r from the integral, centre-referential calculation therefore becomes to r vis. it renamed because the inner-track of the point P only represents itself as a visual orbit.

The visual track of point P around the centre of the total-surface only now represents a form of the liberations trajectory, which is only one consequence of the real gravitativen track. A galactic liberations trajectory of a body draws through it from, that in her/its/their visual one and doesn't surface-moderate itself any gravitativ of working mass centre decides, them/her/it could be circled about. This fact of a galactic liberations trajectory becomes “Bahnmechanik" very beautifully in the paper [6]; represented at the example of the satellite Soho with its “Haloorbit."

Also the mass of the sickle-shaped rest-surface can simply not become condensed to a common main focus since the masses mutually partially cancel and also effect P, according to distance, differently strongly. In the framework of this essay, no exact representation of the mass-calculation is carried out, however, this can in another essay about the increase-body-problem [7]; is understood in detail. It is recommended to read the essays in the context.

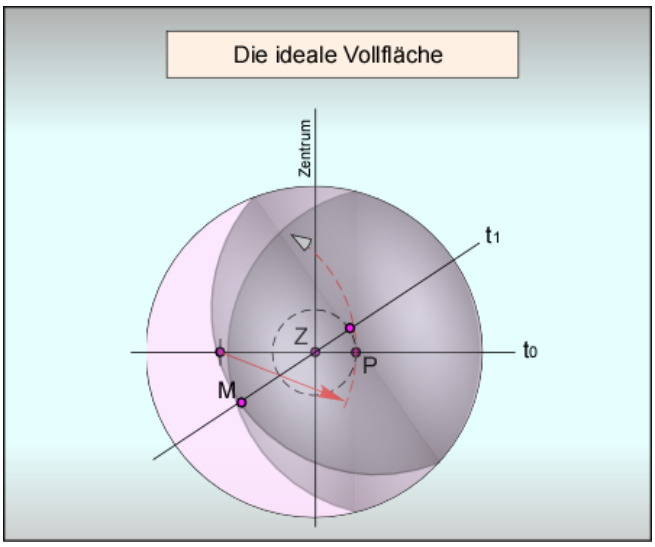
It becomes only the strengths, not the masses, of the individual mass-points of the sickle-shaped surface condensed and in a common pivot with the distance r grav. from P established. (red marks in the graphics 2, the strength-sum of the sickle-shaped surface, calculates in the discreet model-bill, it can now be converted into a corresponding mass-equivalent. Through rearranging and renaming from (F1) gets one

F in F grav. r in r grav. and M in M grav.

$$M_{grav.} = \left(\frac{F \cdot r^2}{\gamma \cdot m} \right) = \frac{F_{grav.} \cdot r_{grav.}^2}{\gamma \cdot m} \qquad \textbf{(F4)}$$

So, one calculates the attractive mass M of grav. (as equivalent, the radius r grav. from the summary of the singles-calculations, and also the gravity F grav. , she/it on P works.

If one lets the point P now rotated (from t0 after t1 and still), so P rotates about the centre “without masses” (gravitativ not effective) of the surface on a liberations trajectory. (Graphics 3 nettled circle)



Graphics 3

This the point P of accelerating masses (a real own-movement is insignificant here) “rotated" also, but not actually simultaneously but it always becomes effectively new masses gravitativ while other masses lose her/its/their gravitativen influence on P. This gravitativ working (effect) mass-centre .rotated" with same speed as P around the centre of the surface. The gravitative strength, that is practiced by the attractive real masses (sickle-shaped surface), lets itself calculate discreetly without problems, if is the distance of the gravitativ of working mass (red arrow as radius) and the attractive mass familiar.

If one now tries inverted, with known gravitativer strength or with known

[6] Bahnmechanik S. 12/13 Institut für Raumfahrtsysteme www.irs.uni-stuttgart.de

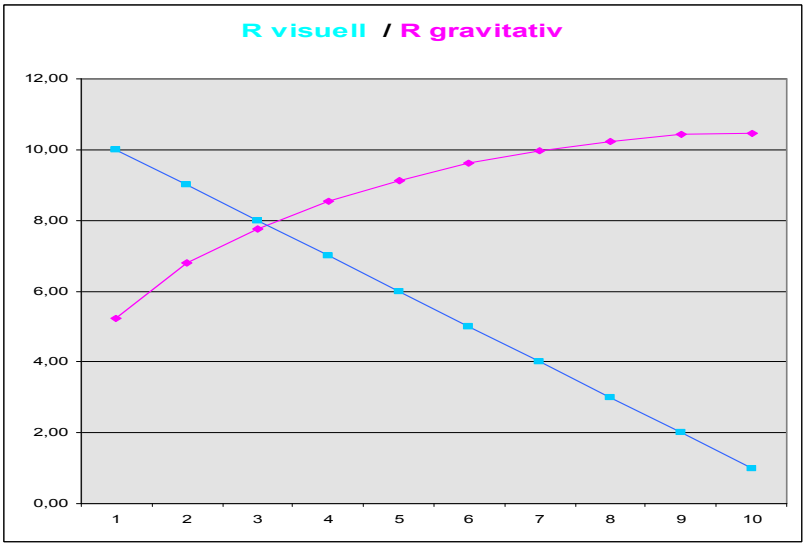
[7] „ Das Mehrkörperproblem in der Berechnung einer Galaxie und der Virialsatz und seine Anwendung“ M. Krause 3/2005

circulation-speed, to calculate the mass and the radius again, so one has an equation with two unknown before oneself. It therefore is not possible, these two values, neither from the strength still from the visual circulation-speed, to calculate.
If one tries, so one gets a **fictitious mass**, that would be required, to nevertheless calculate a mass for P in the centre of the surface, what is easily realizable with the pre-determined visual radius, if P circled on a normal orbit. Since however, it is about a liberations trajectory, circles on which P, this fictitious mass doesn't say anything about the real mass-distribution of the mass-surface. It just as easily possibly would be a fictitious mass to calculate in the centre of the "halo trajection" of the satellite SOHO.
Here like there, in both cases, this doesn't have anything to do with the real mass-distribution, however.

If however, inadmissible manner, at the visual track of P, runs out from a tarpaulin-tare of one track of P around the centre of the surface although no gravitativ of working masses exist there!, so, one calculates a mass, that doesn't have anything awfully with the real mass. (Leaves mate at will much different mass / radius for itself with a constant strength F calculates.)

Let's now look at the already recognized circumstance of the difference of the exit-values (radius and mass), therefore from the gravitativ of working mass M and the radius r, in the two calculation-models. Let's compare the values of the different radiuses of the two rake-models together at first.

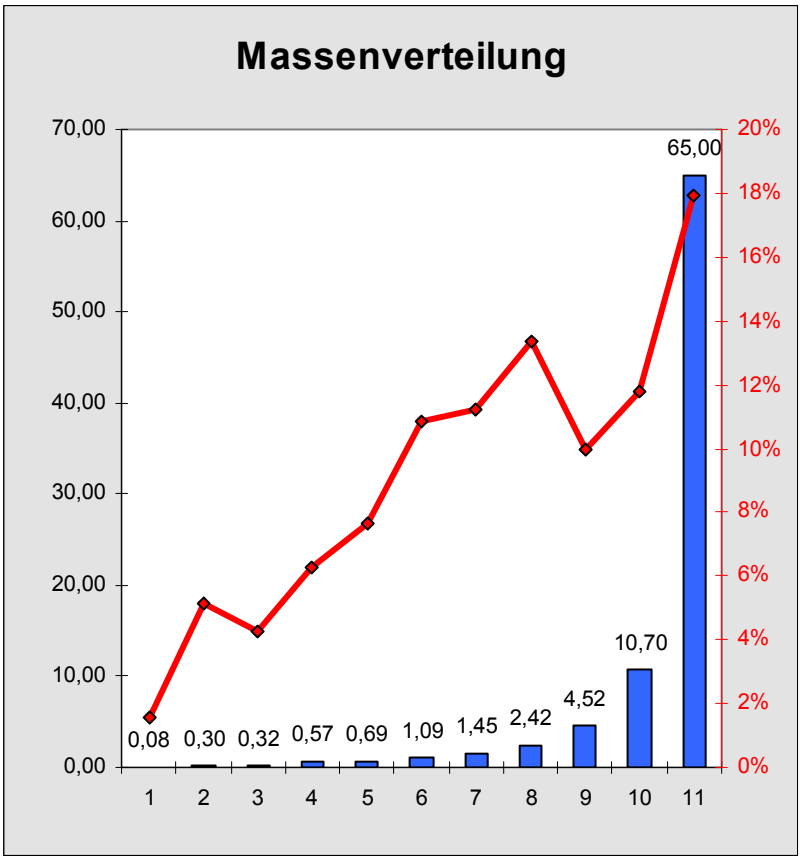
With even mass-distribution of the entire surface, the radiuses distinguish them/her/it for itself



Graphics 4 in the two calculation-models, as represented in the graphics 4. The blue curve shows the radius of the integral calculation. (One is right below, 1r centre-approach mass by far represented.)
A centre-near mass after the discreet calculation has a radius of 10,4 r in accordance with the pink-colored curve.

The value of the radius required to the correct calculation deviates not only considerably of each other in the different calculation-models but is even opposite.
One turns a galactic visible mass-distribution, as described in the literature,[8]; to and inputs these into the discreet calculation-model, so one finds results, that are done descriptively on the nearest side in the graphics 6, following. The graphics 5 show the inputted mass-density, that then leads to the results shown in the graphics 6.

[8] Oort 1938, Sternzählungen www.astro.uni-bonn.de /~deboer/galstruc/galst.html



Graphics 5 show the mass-density of a galaxy for the individual mass-points of a galactic surface of the centre (right), until to the left of lying edge. These, also in the literature described [9] visual mass-distribution, represented as blue columns here, a constant visual circulation-speed of all mass-points generates in the discreet calculation around the galactic centre. No. acts with this graphic representation5 not around the total-masses of the galaxy but only about the mass-density or mass-distribution within the galactic surface.

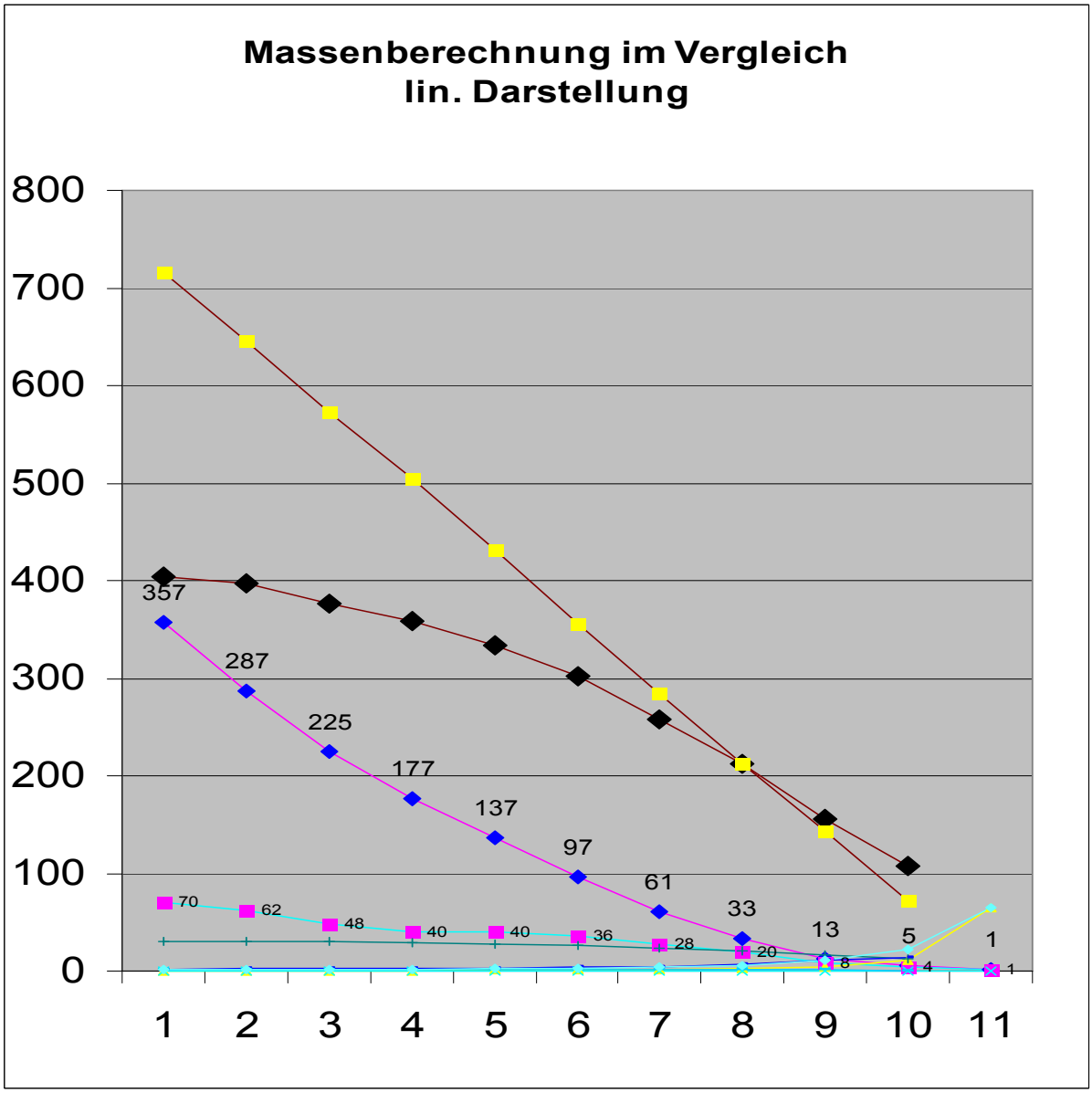
As result of a discreet calculation of the circulation-speeds is in the galactic surface to be clung:

The visible distribution of the masses described in the literature in a galaxy is completely sufficient, around a flat rotation-curve, as measured in the reality to get. An additional one, invisible mass (dark matter) is not required for a flat rotation-curve with the discreet calculation.

In order to reach a flat rotation-curve in the galactic surface, one needs in the mass differently deep both to comparative calculation-models. It therefore is not only the radiuses, that differ in the models, but it also is also the masses of the two different calculation-models they itself distinguishes.

[9] Nach Oort, Plaut, 1975(aus räumlicher Verteilung der RR Lyr Veränderlichen abgeleitet)

Graphics 6



This is demonstrated in the graphics 6. Basis is the same circulation-speed in this graphics in all areas of the galactic surface.
The graphics 6 show in the individual:

1. In the lowermost brightly-blue curve (with violet points and pay-value) the number of the mass-points of circle-ring. (These values are out of calculations and were established by the scanning of the surface.)

2. The pink-coloured curve (with the blue points and with the pay-values) lying over it shows the increase of the surface-points from the right of lain centre the surface, until to the edge, that lies in the graphics left. This curve is synonymous with the surface-increase of the growing circle-surfaces to always bigger to the edge. If the masses would get all the value 1 in the surface, the total-mass-number of the surface would be with 357. (Also these values therefore are out of calculation.) This curve serves as reference-size.

3. The brown curve, with the black points, puts the added mass-quantity of the individual mass-points multiplied with the mass-density named in the literature there. This curve is the actual visible masses in the galactic surface. The **total-masses** of the galaxy are only represented by the left-wingers edge-masses. All other points on this curve represent only the share of the total-masses, which are created through the adding of the respective further circle-ring. Only the total-mass forms the exit-value for the discreet calculation of the circulation-speeds.

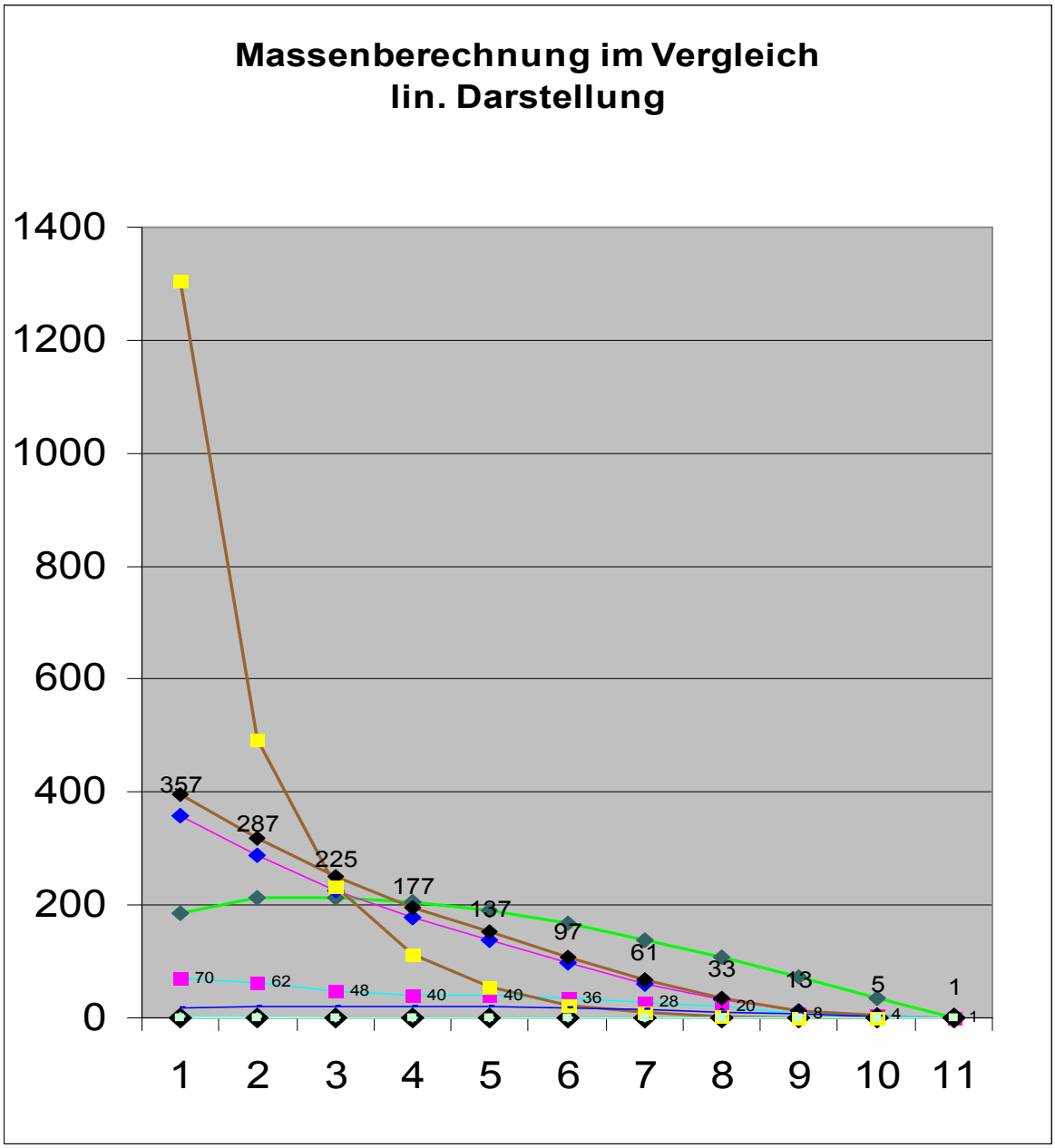
To the explanation: In the centre is z. B. one mass-point with the mass-density 65 (from graphics 5) to it, four mass-points with the mass-density 10,7 come. This yields in sum: 65 + 10,7 * 4 = 107,8 this value is represented by the first black point. From her/it, as far as to the edge rising, mass-quantity of wanting to derive a mass-increase in the total-galaxy is not admissible of course since it is initially only about the inner parts of the total galaxy. The red curve in the graphics 5 shows the percentage mass-share of the individual circle-rings at the total-galaxy-masses incidentally.

4. The brown curve with the yellow points now represents them/her/it from the constant visual circulation-speed with the integral calculation-method of calculated mass of the galaxy. It is about the typical, linearly rising mass-representation, that is postulated in the numerous works over the dark matter. The mass of the galaxy should rise linearly after it to the edge with the radius.
   It is spoken only of “masses" of the galaxy in this context. It would have to be called correctly expressed, however, that approaches the total-galaxy the mass-shares at the centre of the total-surface very small is (inner-masses of the respective orbit) and with increasing edge-proximity ever bigger, in order to finally then gain the total-value of the galaxy-masses at the edge, becomes. One finds the calculated total-masses of the galaxy about the left edge of the graphics 6, she/it amounts approximately 715 Mass-units. If one compares this value with him/it completely right standing on the curve centre-approaches value of the total-mass-fraction of 71,5 (yellow point), is established so that it itself with the actually centre-approaches value by one tenth of the edge-value deals. (Dependent on ten, evenly distributed, pre-determined measuring-points as far as of the edge, dignity one the number of the measuring-points of edge and centre on 20 increases, so the inner-masses only would amount a twentieth (5 percent) of the total-masses of the galaxy close to the surface-centre. If one bases 100 equally distributed measuring-points on the route from the centre of the edge, centre-near inner-masses of one hundredth (1 percent) of the total-masses let themselves so determine.

One now proclaims the most inner fraction of the total-masses (from 10 percent or 5 percent or 1 percent) the new total-masses (= 100 percent) of the galaxy. So, one confused incomparable with comparable.
From it now, to close, that the dark matter 90 percent or 95 percent or even 99 percent of the galactic total-masses would amount, as that is done again and again in the literature, is called, this inadmissible-proves in-added as well one the always bigger nascent circle-ring-mass-point-cipher into the mass-calculation. The matter dark in such a way “calculated" therefore is a contemplation or representation-mistake at this place.
If one compares the edge-value of 715 (yellow point), that should represent the total-masses of the galaxy over the integral calculation, in the graphics 6 with which actually sum up visible masses of 405 (black point), is established so, that more highly but at first one tenfold only one about the factor 1,765-times higher mass-share through the integral calculation as result not comes out.
Whether also this, through the integral calculation, lets itself verify elevated mass-share than result, however, another comparative examination should show on correctness.
A homogeneous mass-distribution now is inputted by 1 per mass-point to it into the calculation-model. Now calculate yourself another mass-value from the circulation-speed, as that, that through the sum up mass-points of pretended sum, so the integral calculation of the galactic masses is useless. The same is applicable also to the curve with the discreetly determined mass-values.
The following graphics 7 show the result:
The mass-values of the discreetly calculated mass-quantity correspond approximation-wisely to the sum up surface-point-number. (The deviations of almost 10 percent were evoked by a deliberate easy falsification. It was prevented an one on the other-downfall of the curves by it.)
The brown curve with the yellow points, that calculated them/her/it integral, mass-values from the circulation-speed represents, is not to be brought in unison with the necessarily pre-determined masses.
The deviations amount +264 percent in the edge-area and fall in the centre-approaches area far under the real mass-quantity back. The now calculated result also is no more comparable with the before calculated value of a factor of 1,765 (corresponds +76,5 percent more mass)
The integral calculation of the galactic masses leads to not consistent results in the surface-calculation. It could now be objected that the dark matter manifests itself only in galactic magnitudes. One also gets the same wrong results, however, if one executes size-area this calculation in the tarpaulin-tare.

Because of the wholeness, also that is into this graphics 7, over the gravitative strength discreetly calculated, mass equivalent been inserted. It is about the green curve, which should lie in every case under the total-masses of the galaxy. It also does this.

Graphics 7



4. Results of the comparison of the two calculation-methods for the calculation of the gravity in a galactic surface

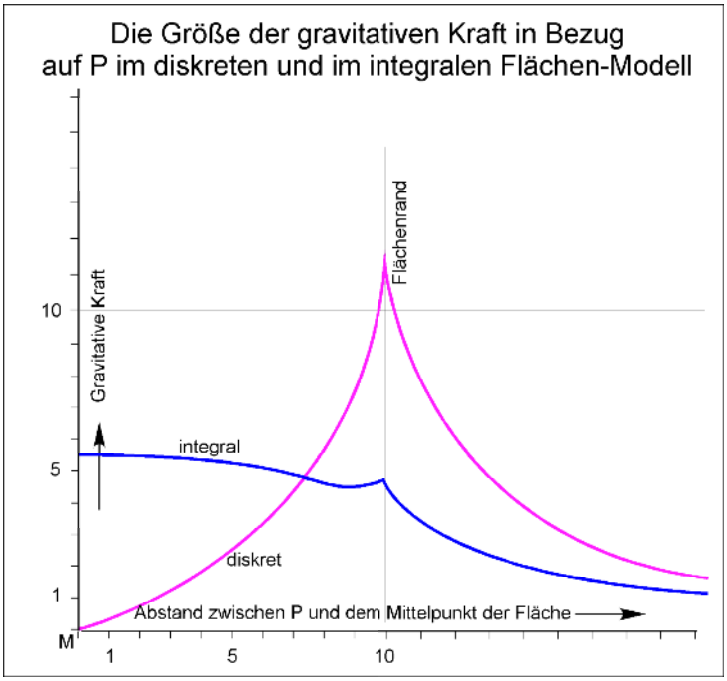
If one tries the mass of the same at a distant galaxy over the visual circulation-speed, that to determine the centre on liberations trajectory turn around masses, so a too large mass will be calculated inevitably with the integral, centre-referential calculation. This miscalculation then leads unavoidably to the incorrect assumption of a not visible dark matter. Look also the comparison between integral and discreet calculation in another work here in the forum. [10]

In conclusion, also the gravitative strength should be represented, that occurs in the different calculation-models.

[10] .Der comparison of integral and discreet calculation at the galactic mass-regulation." M. Frill 3/2005 www.kosmoskrau.de

Outside the massive homogeneous means-surface, the gravity also decreases quadratic for point P with the discreet calculation. However not in the same manner, as that the case would be with the integral calculation. The gravitative main focus (in the surface) is because of the point P (with the discreet calculation) nearer, as the centre of the surface, a considerably bigger becomes with it, practiced gravitative strength on point P in the surface. The edge of the surface is on the vertical centre line.

It should be pointed out to it, that the two different calculation-types only come to same conclusions of the calculation for a mass-ball-model only and exclusively with the gravitativen strength, in this context. However, what is applicable to the ball (sphere), cannot be transferred on the surface.



The marginal ***graphics 8*** show the calculated gravitativen strengths within and outside the massive homogeneous surface, that is exerted on a point P. (Schematic representation, It, through the integral one and the discreet calculation, doesn't give any comparability of the calculated strengths.

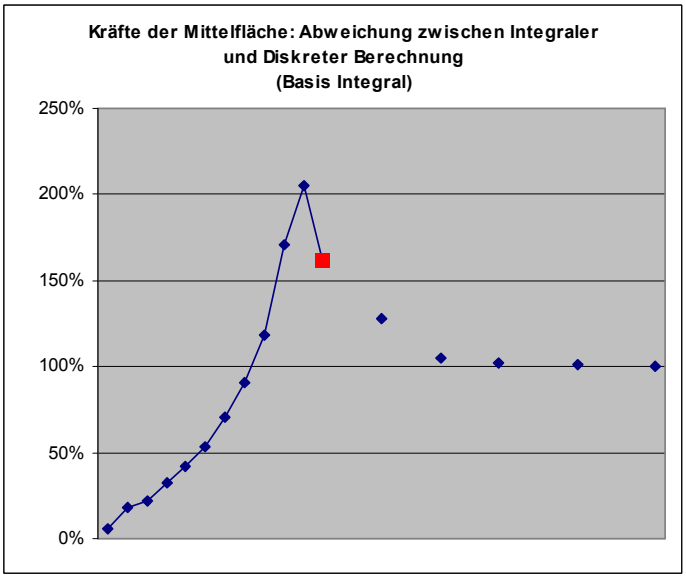
The pink-coloured curve shows the gravitativen strengths, which affect a point P, after the discreet calculation. The blue curve shows the gravitativen strengths, that effect a point P, in the contrast to it after the integral calculation.

The contrast of the different calculation-types steps, in which clearly gravitativen strength-calculation, more than to light.

Confrontation of the gravitativen strength-calculation in the integral calculation-model and in the discreet calculation-model

The integral and the discreet calculation-manner differ in the mass-surface in all value-boar-oaks of the strength F, that gravitativ of working mass M, and the distance r.

The considerable deviation from the integral one(s) and the discreet gravity-calculation in the surface is represented by the following graphics.



Graphics 9 *the percentage deviation of the discreetly calculated gravity of it integral calculation for the massive surface.e. (Basis 100 percent integral calculation)*

(Assess taken from the EXCEL model-file KOKUG10...)

The 100 percent of line in this graphics puts the strengths of this through the integral calculation determined values there. All values, which go beyond the 100 percent of brand, show the strength, that is exerted on P, in the edge-area of the surface a higher value at, which through the discreet calculation has, as which found value through the integral calculation. In the centre-approaches area the surface behaves exactly

different-around with the gravitativen of working strength on the point P, the gravity, after which determines discreet rake-method, many times inferior, is here as the gravity, that after the integral method of calculated values.

In the inside of the massive homogeneous surface, close to the centre, the discreetly calculated values for the gravity are values considerably lower than this integral calculated. If one postpones the point P in direction surface-edge, so the gravity takes more strongly in the discreet calculation to, as with the integral calculation in order to then gain the double value of the gravitativen strength at the edge,

(The singles-points in the graphics 9 represent different distances of the centre of the surface, left beginning with 1 as far as to the perpendicular trace, the edge of the surface, where the value 10 is gained. In the point 11, the biggest gravity is gained because all masses of the surface can work gravitativ on point P here in the discreet model for the first time. (The scanning still prevents this in the point 10) the red point (toned only to the bearings red) marks a position outside the surface by far in 12, followed from 15, 30, 45, 60 and 100 radius steps.

Outside the homogeneous mass-surface, the gravity then decreases quadratic, without however this, after the integral calculation-method determined to gain lower value of the gravity ever. That is that the gravity-strength in the discreetly calculation model outside the surface, also until bigger distances, always a higher value reaches as with the integral calculation-manner.

It remains to mention that also shows the application of the Virial sentence, on the results, that comes out with the discreet calculation, the demanded rapport between potential and kinetic energy. Look example-bill for comment. [11]

5. Further application of the discreet gravity-calculations

Two clear examples for the faulty calculation by means of the integral, centre-referential calculation deliver the problems, that occur distance-calculation the Pioneer probes and the light-distraction of the galactic gravity-lentils with this.

The slowed down Pioneer probe

In this circumstance of the faulty calculation, a possible and very likely explanation therefore is for the unexpected one, hesitating itself removing of the two Pioneer probes from the solar system. If one gives the planet-masses of our solar system (perhaps). also the mass of the Oort cloud, what would cause the speed into the discreetly reckoning model a far-reaching Constance in one, so one gets one in the distance of the Pioneer probe to the sun by 0,0064 percent [12]; elevated gravity opposite the integral, centre-referential calculation-model.[13]
The puzzling “brake effect", that finds out the Pioneer satellite, would explain this. It needs to be therefore postulated no new energy, as fears in the named article, that Newton gravity, with which right, (discreet!) calculation-method, is enough completely to the explanation of the phenomenon.

Too weak gravity-lentils?

Also the quality of distant galactic gravity-lentils, that deflects this more intense than expected, now would be explicable. He/it over the integral calculation-method determined to low (because faulty) value of the gravity is not enough, about the distraction of the light the galaxy lying behind it, to explain. That is only too comprehensible. He/it more than so high equivalent mass-total-value doubles the gravity at the edge of the galaxy, that comes out with the discreet surface-calculation, should be enough, however, to the distraction of the light through the galaxy working as gravity-lentil.

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[11] The increase-body-problem in the calculation of a galaxy and the Virialsatz and his/its application S.11+12 M. Frill 4/2005 www.kosmoskrau.de

[12] Der errechnete Wert hat eine relative Toleranz von 1% auf die errechnete Differenz, entsprechend + - o,oooo32 % auf den Ausgangswert

[13] This artikel one found on NZZ Online under: http://www.nzz.ch/2002/10/30/ft/page-article8GG6N.html

This also in the area of the gravity-lentil-calculation only with her/it considerably to small integral point-masses in the centre of a galaxy is calculated, “Gravity lenses" [14] can in the work, for example, #2; is realized.

Two observable, until now inexplicable phenomenon’s would be with it, without the assumption of an additional dark matter, but with a discreet calculation, explicable.

Debatable dark matter

More still than the mistake of a dark matter steps with the integral ball-calculation with the integral surface-calculation, through which strongly different gravitative strength, sensational to meets.
If one tries her/its/their mass at a distant extensive galaxy to decide her/it/them on the visual circulation-speed of this on liberations trajectory turn around masses, so one will come out inevitably in the surface with the integral, centre-referential calculation considerably to large mass. With what does the total-mistake be composed from two parts. To the one, a wrong basis (the inner-masses) is assumed as mass-reason-quantity and to the second was confused the calculation of a liberations trajectory with the calculation of a gravitativen track.
This double miscalculation then leads unavoidably to the incorrect assumption of a not visible dark matter. Look also the comparison between integral and discreet calculation in another work here in the forum. [15]

Comment: For the ball-volume, approximately at galaxy-pile, a larger quantity therefore becomes “calculated" at dark matter because the mass-point-increase rises per “Inner ball" in the ball-volume-calculation in the square opposite the surface-calculation. Also this should be illustrated by graphics.
It is shown, as the number of the surface-units with homogeneous mass-distribution in the surface (blue columns with pink deposited numbers) per circle-ring from the left of lying centre, until to the right of lying edge rises.
Likewise in the ball (big violet columns with mounting number), the volume-units rise about more than a potency opposite the surface.
If one takes, as that is done calculation integral with the “inner mass calculation" of this, the mass beside the centre as circulation-finishes mass and the belonging inner-masses as galaxy-masses of 100 percent at, so the share of the dark matter calculates for the surface and for the ball after following scheme:

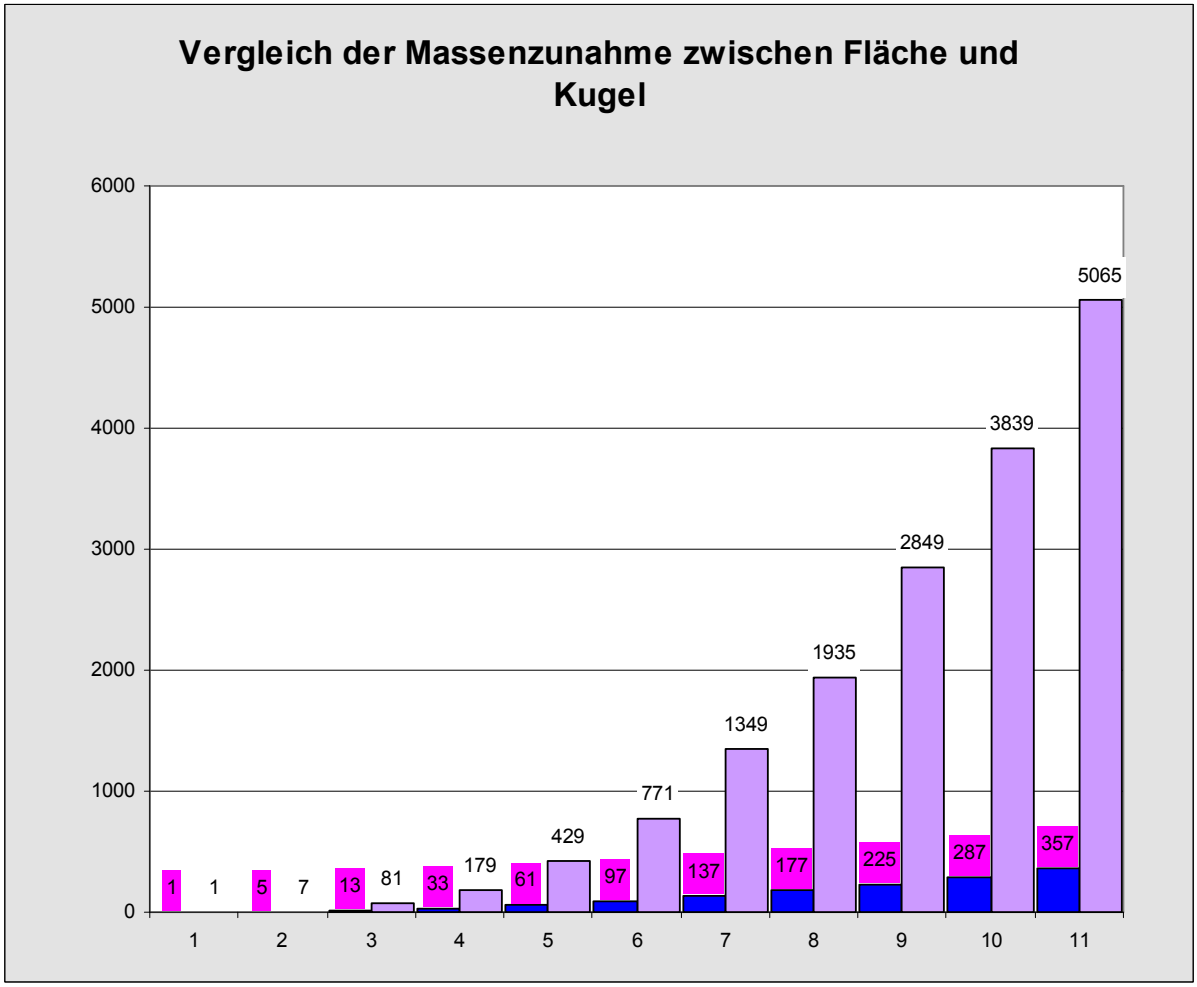
For the surface, the mass-increase would become for itself at dark matter like follows calculates: 357 / 5 shares visible matter = 71,4 shares dark matter.
For the ball, a volume-increase (= mass-increase) would become for itself like follows calculates:
5056 / 7-shares visible matter = 722,3 shares dark matter.

How easily, to recognize, is, the share of the “calculated" dark rises matter in a spherical galaxy-pile opposite a flat galaxy about the factor 10.
This one here a fatal miscalculation mounts, is only far too clear.

[14] Gravitationslinsen von J. Wambsganß & R. Schmidt, Universität Heidelberg 2005 SS / Seite 16-20

[15] .The comparison of integral and discreet calculation at the galactic mass-regulation." M. Krause 3/2005 www.kosmoskrau.de

Graphics 10



6. Summary

The result of the comparison between the two different calculation-methods is unambiguous.
The integral calculation-method, with their inner-masses condensed as point-masses, is not suitable in an increase-body-accumulation for the calculation of the gravity. It leads to the wrong assumption of a dark matter.

In the individual, following mistakes become make with the integral mass-calculation after Newton:

1. An integral-formula, that for a ball-volume of masses, only and exclusively the gravitative strength should calculate and also can, is applied inadmissible manner also for a surface-calculation.
2. It is overlooked calculation integral with her/it that the orbit of a galactic mass represents only a visual liberations trajectory.
3. It is overlooked with the integral calculation that a centre-near track always includes only one fraction of the total-masses of the flat galaxy. Therefore, it is wrong to declare this part-masses as new total-masses, and, to compare the mass-value of the edge at it. Alone this leads to seemingly multiple galaxy-masses on the basis of the wrong basis.
4. This just named mistake increases in the square with the ball-calculation of a Galaxies cluster.
5. From the circulation-speed of a mass of a liberations trajectory, no mass-regulation can the visually turn around of centre takes place.
6. It was ignored, this itself with an even mass-distribution in the surface, with a centre-approaches track all the point P of surrounding masses in her/its/their gravitativen effect lifts. Only when one heeds this, one recognizes that the visual track of P is only one liberations trajectory.