

Universal Multiple-Octet Coded Character Set
International Organization for Standardization
Internationale Standardisierungs-Organisation
Organisation Internationale de Normalisation
Διεθνής Οργανισμός Τυποποίησης
Международная организация по стандартизации

Doc Type: Working Group Document

Title: Proposal to encode 6 letterlike symbols

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Version: 3rd revision

Status: final

Action: for SEWG and UTC review

Date: May 26, 2026

Requester's reference: LUCP L-2619

1. Background

This proposal is part of the research program upon historical mathematical sources, conducted by the CNRS Philiumm project (headed by Prof. David Rabouin, University of Paris) and supported by researchers from the Landesbibliothek Hanover (Germany). The aim of this project work is to achieve a standardized encoding for special mathematical characters in historic texts, which is required for accurate facsimile editions of those sources.

For more background information about the Philiumm project and the related research work, please visit the [Philiumm website](#) or see doc. no. N5277.

2. Letterlike symbols in historic sources

Mainly letters of the Latin and Greek alphabets have been transformed in many ways in order to get distinguishable symbols for specific purposes. A usual method of abbreviating frequently occurring words was by attaching some sort of extra marking to a base letter; this can be a stroke or slash, a loop or other details. Monetary symbols fall into the category of peculiar shaped abbreviation letters, which became standard for a particular connotation (e.g. £ for *libra/pound*, @ for *at*, R for *Recipe*).

1st revision: There are two changes made: a) the Æ character has been identified as an abbreviation ligature (or monogram) and was given a new glyph and name; b) the Greek capital Ϻ has been dropped from this version.

2nd revision: In the course of the recent online discussion on Febr. 24, 2026, no issues with this proposal were raised. So the only actual update made in this version is the addition of a suggested codepoint allocation. The definition “FB00” for the variation sequence character has been corrected to “FB02” (see also N5333R2/L-2533, p. 20).

3rd revision:

- The name GREEK SMALL LETTER OMICRON UPSILON has been changed into OMICRON UPSILON SYMBOL.
- The SEWG suggestion, to specify all representative glyphs as *italic* glyphs, cannot be followed. The symbols originate in historic sources in running text as well as in Math formulae and in mixed settings. An edition of a historic **text** setting will most likely require the symbols in **regular** upright style, just as the rest of the text (regardless of the calligraphy of the historic manuscript). On the other hand, for modern Math settings the **option** to italicize them exists naturally. But an italic determination from the outset would exclude the optionality Regular vs. Italic and impose a prejudice which would violate those use cases, in which the symbols are needed in upright style. Other comparable Math symbols are encoded without a biased prescription “italic”, e.g. $\int$, Σ . Also $\boxtimes$, $\mathbb{P}$, $\mathbb{Q}$, $\mathbb{C}$ and $\mathfrak{f}$ (1DB02, 1DB05, 1DB06, 1DB11, 1DB1C) are accepted in their normal form. – Conclusion: it is OK to have the option “italic” on the font choice level (where it belongs), but it would be fatal to exclude the option “regular”. It would be a mistake to restrict these symbols to their italic form, because that would miss the editorial requirements of editing historic sources, for which modern Math setting conventions are not mandatory and for which the symbols are needed in the first place.

3. Characters

If this proposal gets accepted, the following characters will exist:

1DB1D	$\wp$	ALPHA X SYMBOL
1DB1E	$\mathfrak{D}$	FUNCTIO DIFFERENTIATA SYMBOL
1DB1F	$\mathbb{X}$	DOUBLE X SYMBOL
1DB20	$\mathfrak{S}$	DOUBLE SMALL SIGMA SYMBOL
1DB21	$\mathfrak{O}$	OMICRON UPSILON SYMBOL

For one character we propose a variation sequence:

1D4CD FE02 $\mathcal{X}$ MATHEMATICAL SCRIPT SMALL X, *current style*



Leibniz-Akademie-Ausgabe (LAA, general edition of Leibniz’s writings)

LAA series VII (mathematical manuscripts, volumes 3 to 7 available online)

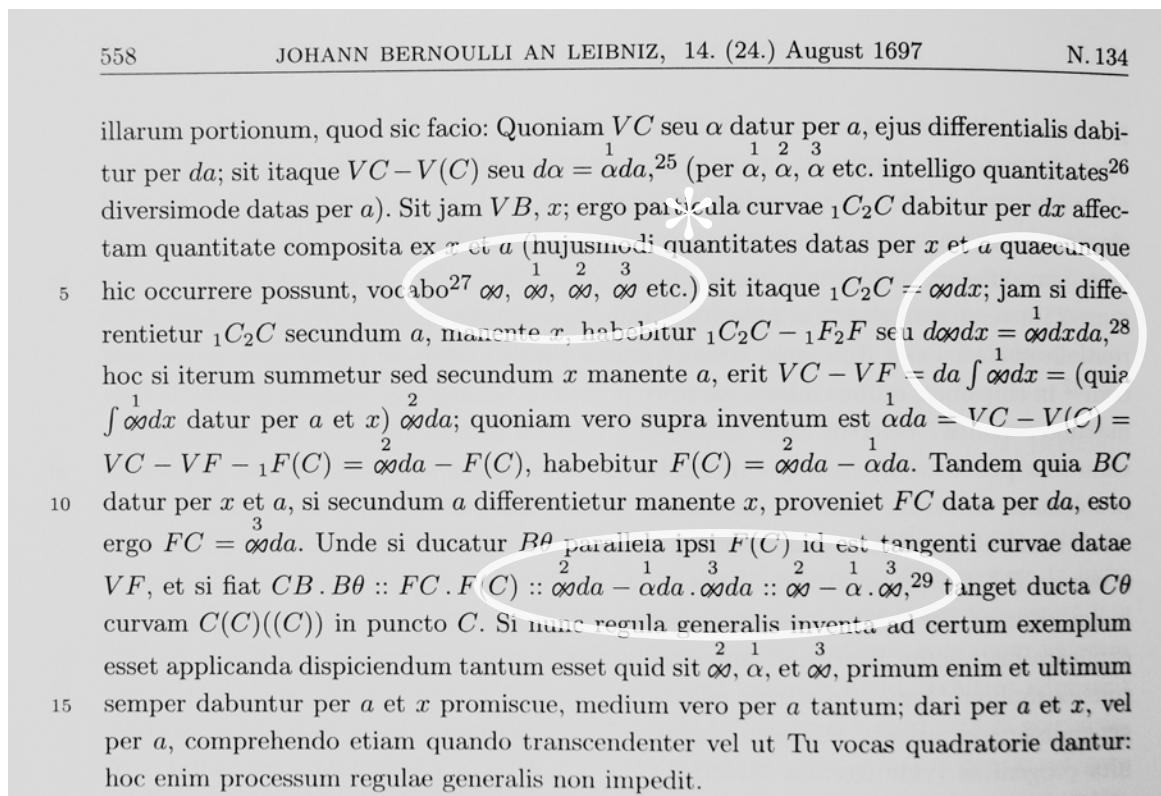
We propose the following encoding scheme:

1DB00 Miscellaneous Symbols and Arrows Extended 1DBFF

	1DB0	1DB1	1DB2	1DB3
0	 1DB00	 1DB10	 1DB20	 1DB30
1	 1DB01	 1DB11	 1DB21	 1DB31
2	 1DB02	 1DB12	 1DB22	 1DB32
3	 1DB03	 1DB13	 1DB23	 1DB33
4	 1DB04	 1DB14	 1DB24	 1DB34
5	 1DB05	 1DB15	 1DB25	 1DB35
6	 1DB06	 1DB16	 1DB26	 1DB36
7	 1DB07	 1DB17	 1DB27	 1DB37
8	 1DB08	 1DB18	 1DB28	 1DB38
9	 1DB09	 1DB19	 1DB29	 1DB39
A	 1DB0A	 1DB1A	 1DB2A	 1DB3A
B	 1DB0B	 1DB1B	 1DB2B	 1DB3B
C	 1DB0C	 1DB1C	 1DB2C	 1DB3C
D	 1DB0D	 1DB1D	 1DB2D	 1DB3D
E	 1DB0E	 1DB1E	 1DB2E	 1DB3E
F	 1DB0F	 1DB1F	 1DB2F	 1DB3F

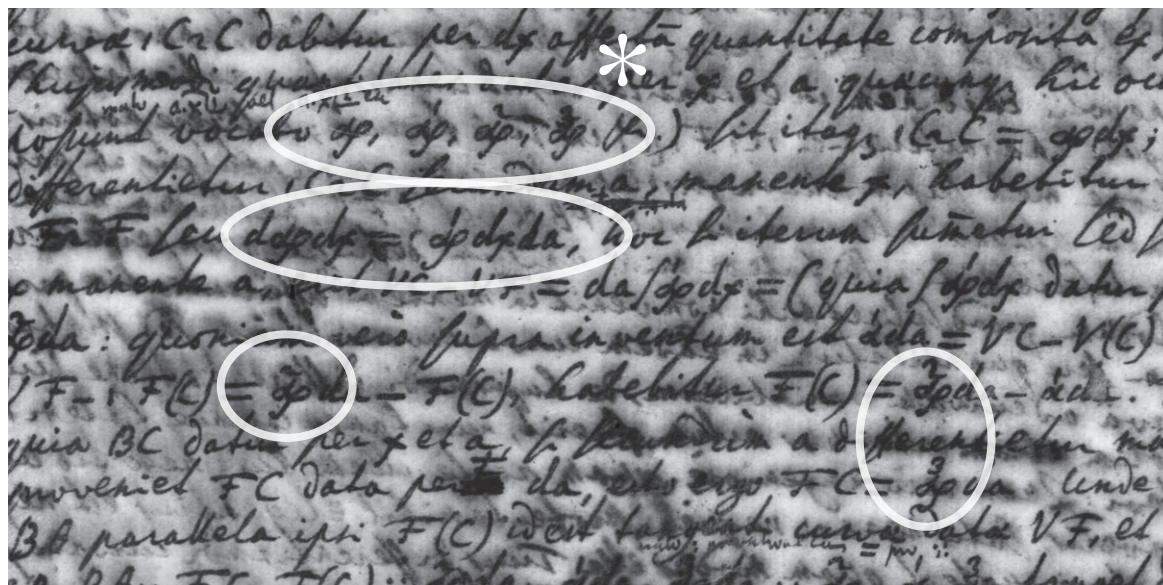
-  **Leibnizian operators**
provisionally assigned for UCS 18
-  **Letterlike symbols**
-  **Miscellaneous mathematical symbols**
see proposal N5336 (see L-2621)

4. Figures and explanations



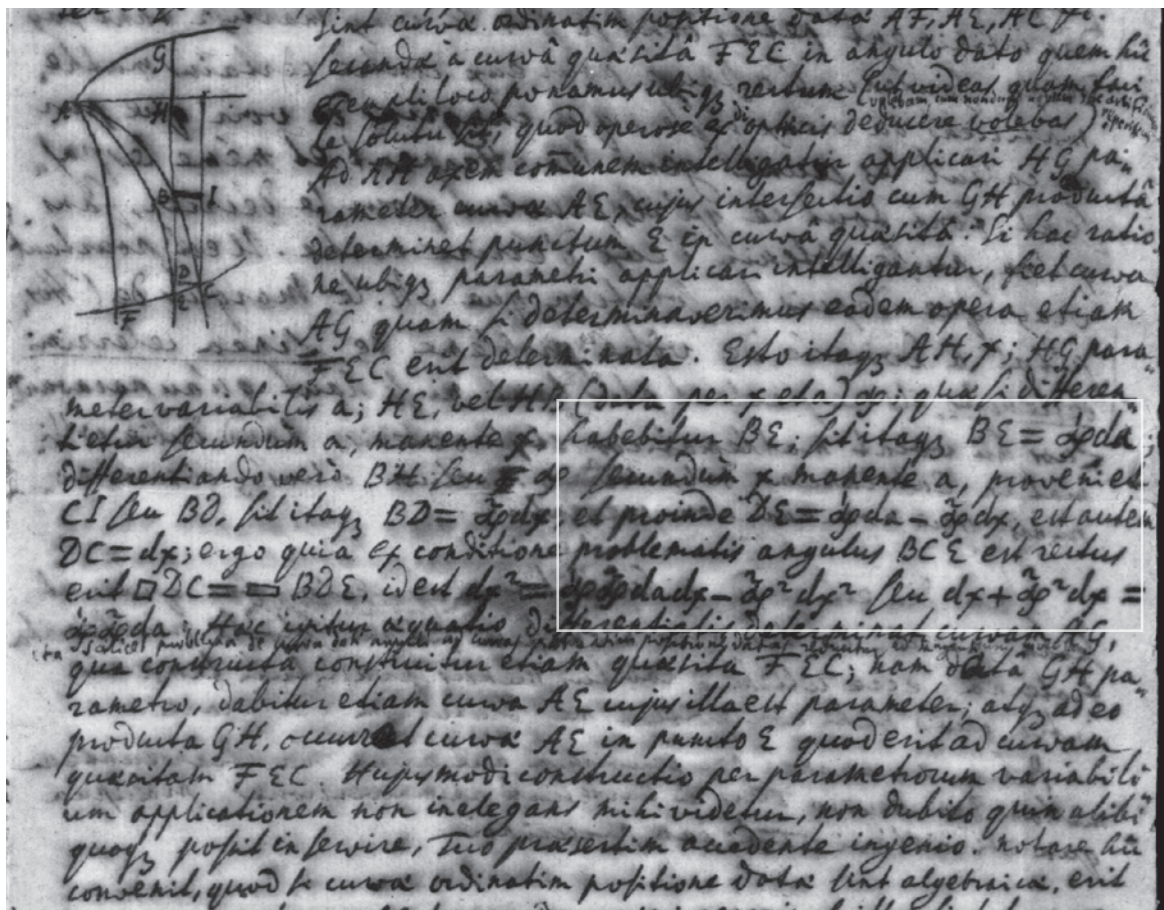
α ALPHA X SYMBOL

The author Johann (I) Bernoulli (1667–1748) uses α for ‘a quantity depending on a ’. In analogy, he merges α and x into one new symbol to denote a ‘quantity depending on the variables a and x ’ (in modern terminology ‘a function in a and x ’). LAA III-7 p. 558



α ALPHA X SYMBOL

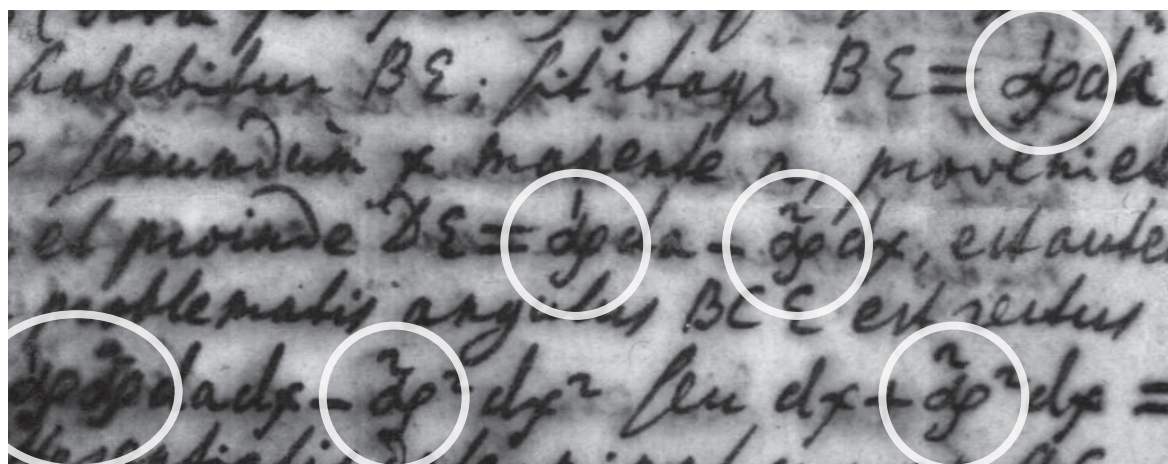
Handwriting of Johann Bernoulli, in a letter to G. W. Leibniz, 1697. The corresponding part of text to the image above. GWLB, LBr. 57,1 211v



∞ ALPHA X SYMBOL

Handwriting of Johann Bernoulli, in a letter to G. W. Leibniz, 1697.

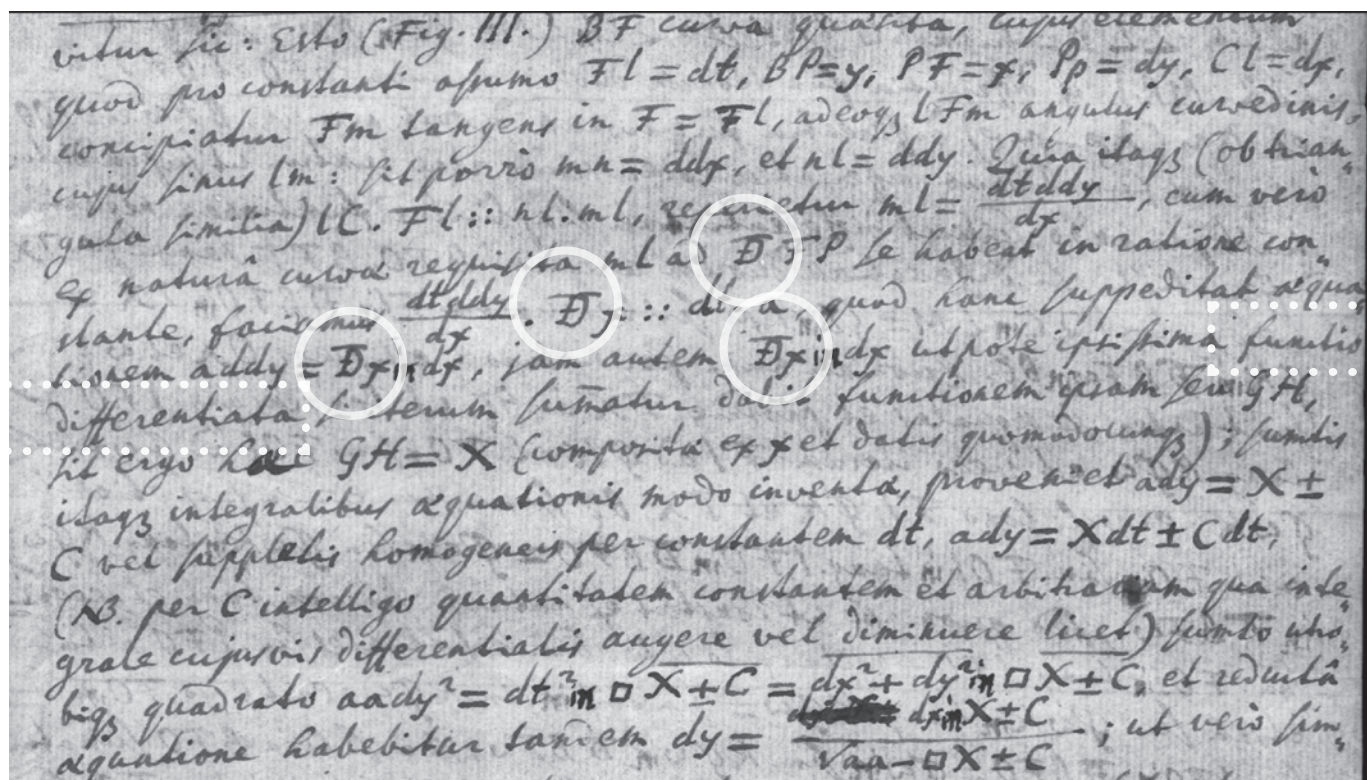
GWLBr, LBr. 57,1 212r



differat ab RO particula infinite parva IO , censetur tamen in speculatione curvarum non solum ut ipsi aequalis sed prorsus tanquam eadem; quamdiu enim curvae particula infinite parva FO consideratur ut lineola recta, tunc singulae applicatae inter PF et RO cum legem mutationis curvaturae nondum subeant haberi possunt pro una eademque applicata, quasi nempe singulae ipsi PF absolute essent aequales: eodem modo quia $\omega\varphi$ considero ut rectam lineolam singulae applicatae inter $\rho\omega$ et $\pi\varphi$ utpote legem mutationis curvaturae pariter non subeuntes possunt pro se invicem sumi adeoque eadem poni cum $\pi\varphi$); si igitur, inquam, loco RO sumatur aequipollens PF et loco $\rho\omega$ aequipollens $\pi\varphi$, habebitur $FO \times \mathcal{D}PF = \varphi\omega \times \mathcal{D}\pi\varphi$ adeoque $\mathcal{D}PF$ ad $\mathcal{D}\pi\varphi$ ut $\varphi\omega$ (φO) ad FO ut sin. $OF\varphi$ ad sin. $O\varphi F$ et permutando $\mathcal{D}PF$ ad sin. $OF\varphi$ ut $\mathcal{D}\pi\varphi$ ad sin. $O\varphi F$. Hinc cum $F\varphi$ sit subtensa arcus curvae infinite parvi $FO\varphi$, adeoque angulus $OF\varphi$ et $O\varphi F$ haberi possit pro semisse anguli curvedinis in F et φ , erit $\mathcal{D}PF$ ad sinum curvedinis in F ut $\mathcal{D}\pi\varphi$ ad sinum curvedinis in φ ; hoc est in ratione constanti. Problema itaque ad pure analyticum redactum huc redit: Ut quaeratur curva $BF\varphi$ ejus naturae ut sinus curvedinis in singulis punctis F sit ad functionem differentiatam (neglecta differentiali) suae respective applicatae PF , in ratione constante. Hoc

Ⓕ FUNCTIO DIFFERENTIATA SYMBOL

Another special symbol invented by Johann Bernoulli: a monogram built of capital F and D is used here to denote the *Functio Differentiata*. – LAA III-7 p. 817



Ⓕ FUNCTIO DIFFERENTIATA SYMBOL

From a letter by Johann Bernoulli to G. W. Leibniz; LBr. 57,1 fol. 242r

Prob. II.
 Invenit positum h (Fig. I.) PZ iam sit ut functio data ipsius arcus BF;
 quaeritur determinatio curva BFN.
 Solutio
 Invenit vestigiis inspicendo res facile expedietur: Erit enim semper trian-
 gulum $\angle LY =$ triangulo $\angle XY$ seu $\angle C \sin \angle M = \angle D \sin \angle \mu$; iam vero $\angle M$
 $(\angle R - \angle MR)$ est differentia functionum duorum arcuum BFO et BFT; ut
 et $\angle \mu (\angle \rho - \angle \mu)$ differentia functionum duorum arcuum BFW et BFOB.
 Atque haec functionum differentiae eodem modo reperiantur ut supra dictum
 multiplicando scilicet differentiatam simpliciter functionem reglata
 differentiali per differentiatam duorum arcuum BFO BFT nempe per TX;
 adeoque loco $\angle C \sin \angle M = \angle D \sin \angle \mu$ scribendum est $F' \sin \angle BFO \sin TX =$
 $\phi K \sin \angle BFW \sin \angle \phi$. Quoniam autem per naturam ellipsis OX et ω e
 functionibus se aequales et proinde TX ad ϕ ut tangens ang. IFO ad
 tang. KQ ω . et vero iterum FI ad ϕK ut FO ad $\phi \omega \sin$. FOI ad $\phi \omega \sin$.
 $\phi \omega K$; ergo si loco FI, ϕK et TX, ϕ sumantur eorum proportionalia
 ut FO $\sin$. FOI in tang. IFO in $\angle BFO = \phi \omega \sin$. $\phi \omega K$ in tang. KQ ω
 in $\angle BFW$; Sed quoniam ut constat ex natura spiralem, tang. et secant.
 FOI in tang. IFO = rectangulo inter sinum totum et sin. IFO; ita
 etiam $\sin$. $\phi \omega K$ in tang. KQ ω = sin totum $\sin$. KQ ω ; erit ergo FO in
 $\sin$. IFO in $\angle BFO = \phi \omega \sin$. KQ ω in $\angle BFW$; seu si loco BFO sumatur
 aquipotens BF, et loco BFW aquipotens BFQ, habebitur FO in $\sin$.
 IFO in $\angle BFT = \phi \omega \sin$. KQ ω in $\angle BFQ$; adeoque $\sin$. IFO in $\angle BFT$ ad $\sin$. KQ ω
 in $\angle BFQ$ ut $\phi \omega$ (FO) ad FO ut $\sin$. OFQ ad $\sin$. OQF, et permutando
 $\sin$. IFO in $\angle BFT$ ad $\sin$. OQF ut $\sin$. KQ ω in $\angle BFQ$ ad $\sin$. OQF in ratio-
 ne constante: Problema itaque iam analyticum factum est reductum utque
 naturae curva BFQ hanc habens proprietatem ut sin. curvæ in
 quovis puncto F sit ad $\sin$. IFO in $\angle BFT$ in ratione constanti: Hoc
 ut solvatur positum ut prius (Fig. II.) BP=y, PF=x, BF=t, Pp=dy
 Cl=dx, FI vel Fm=dt; functio data arcus BF=v, erit ml= $\frac{adtddy}{dx}$
 Quia namque itaque secundum proprietatem curvæ modo invocatae $\frac{adtddy}{dx} = \frac{dv}{dx}$
 in $\angle BFT$ $\left(\frac{dv}{dt}\right) = dt$: a unde hæc æquatio $\frac{adtddy}{dx^2} = dv$ seu $\frac{adtddy}{dt^2-dy^2} = dv$
 itaque integralibus $\int \frac{adtddy}{dt^2-dy^2} = v$ seu quia a et dt sunt constante, potest
 simpliciter poni $v = \int \frac{adt}{dt^2-dy^2}$: quæ itaque æquatio determinat naturam
 curvæ quaerita.

Scholium

∅ FUNCTIO DIFFERENTIATA SYMBOL

From the same letter by Johann Bernoulli to G. W. Leibniz; LBr. 57,1 fol. 242v

Et ut compendio consulamus licebit $\mathfrak{D}$ ita enuntiare: $\frac{\frac{l}{a}y^2 + \lambda y + \pi a}{y^2 + \epsilon y + \omega a} \frac{\mathfrak{D}}{\mathfrak{F}}$. Tantum ergo notemus; $\underline{\epsilon}$ pendere ex e . $\underline{\varrho}$ ex r . $\underline{\omega}$ ex r et s . $\underline{\lambda}$ ex l et n . et $\underline{\pi}$ ex $l.n.p$. Igitur $\frac{\odot\mathfrak{F} + \mathfrak{D}\mathfrak{F}}{\mathfrak{F}\mathfrak{F}}$ faciet:

$$\begin{aligned} \mathfrak{F} & \left\{ \begin{array}{l} pay^2 \\ + \varrho n \dots + \omega n \omega y \\ + \omega l \dots + \omega a n \dots + \omega a^2 p \end{array} \right\} \cap \odot\mathfrak{F} \\ \mathfrak{F} & \left\{ \begin{array}{l} + \pi a \dots \\ + r \lambda \dots + r \pi a \dots \\ + s l \dots + s a \lambda \dots + s a^2 \pi \end{array} \right\} \cap \mathfrak{D}\mathfrak{F} \end{aligned}$$

Sed iam ex numeratore $\odot\mathfrak{F} + \mathfrak{D}\mathfrak{F}$ intelligo conferendo cum calculo superiore, nulum hic a compendio seu brachylogia haberi lucrum, nisi forte in nominatore, cum hic per brachylogiam tantum novem habeantur quantitates, partes formulae, supra vero 14. Itaque retento superiore numeratore, quia nullum a comprehensione seu brachylogia lucrum, nominatorem novum adhibeamus, multiplicando: $y^2 + ry + sa$, per $y^2 \varrho y + \omega a$. Sed ne in lapsum proclives simus describendo ob affinitatem r et ϱ , et s et ω , satius ergo pro ϱ adhibere φ et pro ω adhibere, γ . et $y^2 + ry + sa$, multiplicata per $y^2 + \varphi y + \gamma a$, dabit:

$\sigma\sigma$ DOUBLE SMALL SIGMA SYMBOL

Leibniz used this symbol for a quantity in the same way as he used Roman letters or other Greek letters, such as gamma, epsilon, lambda, pi, phi or omega; as shown in this example.

LAA VII-3 p. 643

The shape of this character evolves when two small Sigmas – $\sigma \sigma$ – are written as a ligature in one movement: $\sigma\sigma$. Alternative name options for DOUBLE SMALL SIGMA SYMBOL are:

SMALL SIGMA SIGMA SYMBOL (char. property: Sm),

GREEK SMALL LIGATURE SIGMA SIGMA (char. property: Ll).

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ARITHMETISCHE KREISQUADRATUR 1673–1676
N. 32

$$a \overset{(1)}{\sqcap} \frac{2y}{1}.$$

$$a \overset{(3)}{\sqcap} \frac{2y}{1} - \frac{2y^3}{3}.$$

$$\frac{2y^3}{3} \overset{(5)}{\sqcap} \frac{2y}{1} - a \text{ ex } 3$$

$$\text{arc} \sqcap \frac{2y}{1}.$$

$$\text{arc} \sqcap 2y - \frac{2y^3}{3}.$$

Si tangens y , arcus a , erit $a \sqcap \frac{y}{1} - \frac{y^3}{3} + \frac{y^5}{5} - \frac{y^7}{7}$ etc.

et duplus arcus erit $2a \sqcap \frac{2y}{1} - \frac{2y^3}{3} + \frac{2y^5}{5} - \frac{2y^7}{7}$ etc.

$\sigma\sigma$ DOUBLE SMALL SIGMA SYMBOL – **LAA VII-6** p. 376

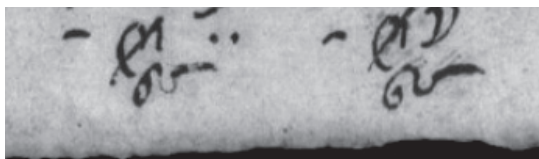
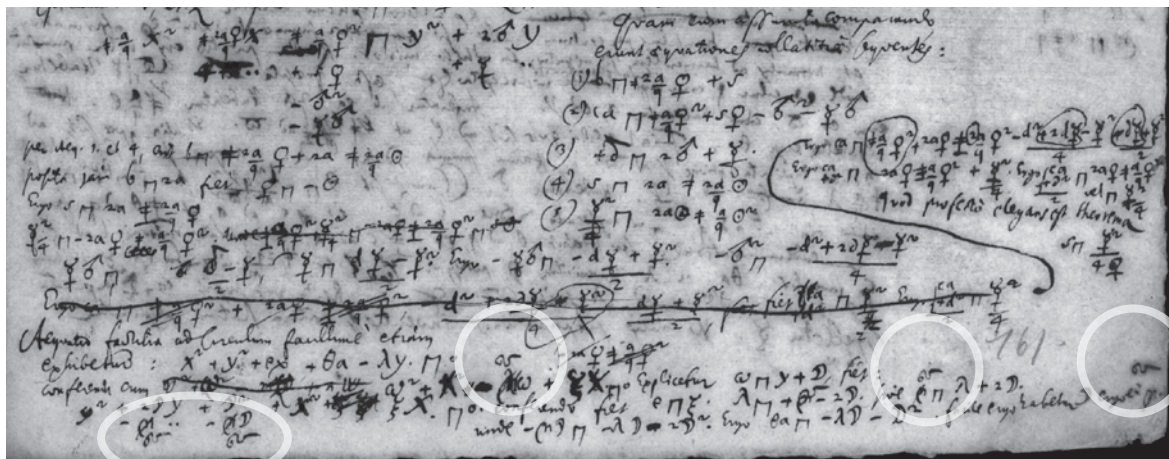
$-\sigma^2 \sqcap \frac{-d^2 + 2d\varphi - \varphi^2}{4}$. Ergo $ca \sqcap \left[\frac{a}{q} \varphi^2 \right] + 2a\varphi \pm \frac{(2)a}{q} \varphi^2 - \frac{d^2(2d\varphi) - \varphi^2}{4} - \frac{(-d\varphi) + \varphi^2}{2}$.
 Ergo $\frac{ca}{+d^2} \sqcap 2a\varphi \pm \frac{a}{q} \varphi^2 + \frac{\varphi^2}{4}$. Ergo $\frac{\left\{ \begin{smallmatrix} ca \\ +d^2 \end{smallmatrix} \right\}}{2} \sqcap 2a\varphi \pm \frac{a}{q} \varphi^2$ vel $\sqcap \frac{\varphi^2}{4}$. Quod profecto elegans
 est theorema. $s \sqcap \frac{\varphi^2}{4\varphi}$.

Aequatio factitia ad Circulum facillime etiam exhibetur: $x^2 + y^2 + ex + \theta a - \lambda y \sqcap 0$.
 5 conferenda cum $\omega^2 + x^2 - \omega\omega + \xi x \sqcap 0$. Explicetur $\omega \sqcap y + \mathfrak{D}$, fiet:
 $y^2 + 2\mathfrak{D}y + \mathfrak{D}^2 + x^2 + \xi x \sqcap 0$.
 $-\omega \dots -\omega \mathfrak{D}$

Conferendo fiet $e \sqcap \xi$. $\lambda \sqcap \omega - 2\mathfrak{D}$. sive $\omega \sqcap \lambda + 2\mathfrak{D}$. Unde $-\omega \mathfrak{D} \sqcap -\lambda \mathfrak{D} - 2\mathfrak{D}^2$.
 Ergo $\theta a \sqcap -\lambda \mathfrak{D} - \mathfrak{D}^2$. Facile ergo habetur $\mathfrak{D}$ ergo et ω .

σ DOUBLE SMALL SIGMA SYMBOL – LAA VII-7 p. 414

The following figure shows the manuscript source of that text (LH 35 XIII 3, fol. 161r):

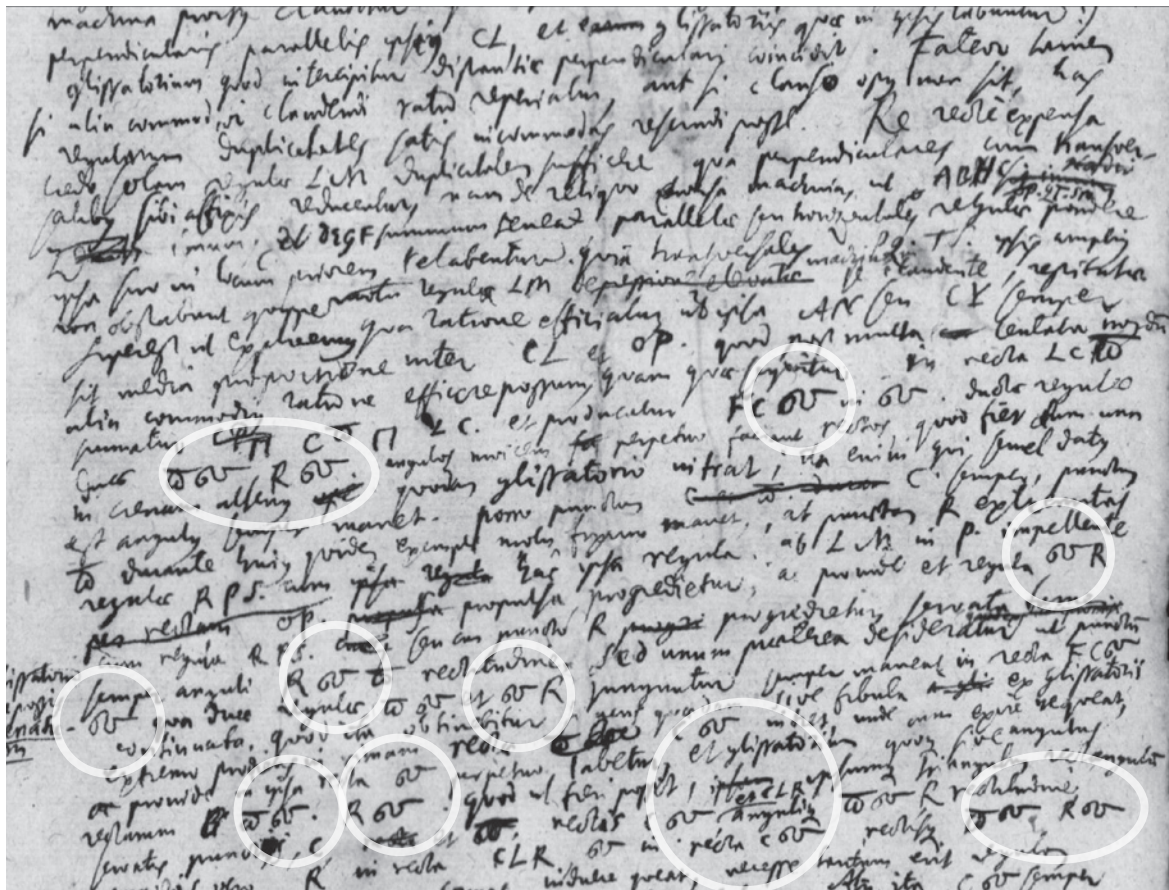


$$\begin{aligned}
 \frac{a}{1} &= \frac{a^3}{1,2,3} + \frac{a^5}{1,2,3,4,5} - \frac{a^7}{1,2,3,4,5,6,7} \\
 \frac{a^2}{1,2} &= \frac{a^4}{1,2,3,4} + \frac{a^6}{1,2,3,4,5,6} - \frac{a^8}{1,2,3,4,5,6,7,8}
 \end{aligned}$$

14 Darunter: $\int \overline{d\omega} \sqcap \text{segm.} \sqcap \omega$. $\int \overline{a\omega} \sqcap \int \overline{a\overline{d\omega}}$. $\overline{d\omega} \sqcap \overline{d\overline{\omega}}$. Ergo vel $v \sqcap \frac{\overline{d\omega}}{\overline{d\overline{\omega}}}$
 vel $a \sqcap \int \frac{\overline{d\omega}}{v}$. $\int \overline{d\overline{\omega}} \sqcap \omega$.

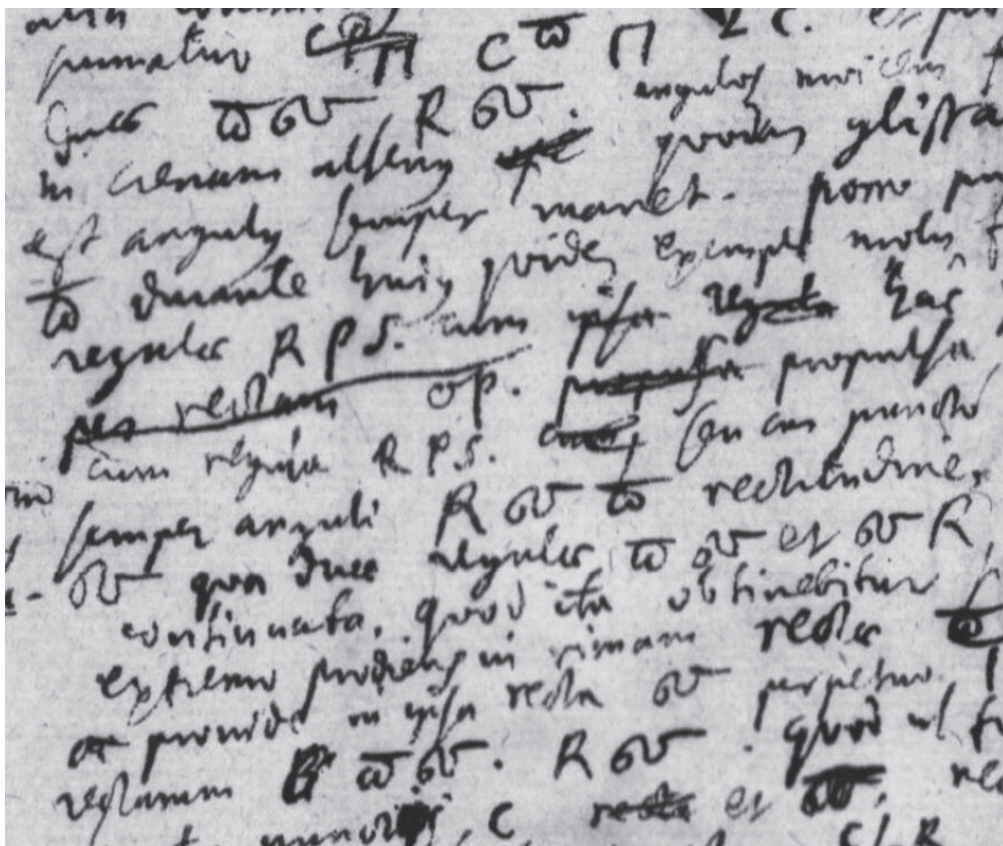
σ DOUBLE SMALL SIGMA SYMBOL

LAA VII-6 p. 401



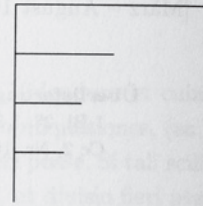
σ DOUBLE SMALL SIGMA SYMBOL

LH 35 I 17, fol. 14r



[Leibniz]

r	y	z	ω	ϣ	
p	a	b	c	d	e f
q	g	h	i	k	l
s		m	n	s	t
t		v	w	x	
v					
w					

 $\frac{1}{1} \quad \frac{1}{2} \quad \frac{1}{3}$


[Fig. 1]

[Tschirnhaus]

 $\frac{1}{1} \quad \frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4} \quad \frac{1}{5}$
 $\frac{3}{2} \mid \frac{11}{6} \mid \frac{50}{24}$
 $\frac{1}{2} \quad \frac{1}{6} \quad \frac{1}{12} \quad \frac{1}{20}$
 $\frac{2}{3} \quad \frac{3}{4} \quad \frac{4}{5} \quad \frac{5}{6}$

ϣ GREEK SMALL LETTER OMICRON UPSILON, LAA VII-3 p. 810

The context of the scheme beginning with y z ω ϣ (in the 1st line) shows evidence for this character being a Greek letter taken as a mathematical symbol, which must not get confused with other, similar looking characters.

328 DE CONSTRUCTIONE AEQUATIONUM SOLIDARUM, September – Oktober 1674 N. 31

autem ψr loco c^2 , quia nihil necesse est assurgere ad quadratum. Ergo valor ipsius ψr

est $\frac{r \omega^2 r^4}{t g^2} \mp \frac{\delta q}{r} \omega r^2 + 4b^2 g^2 + \frac{2\gamma q b}{r} g^2 - r^3 p$. Sunt ergo lineae ducendae,

$$EF \sqcap \frac{\delta r^2}{g^2} - 2b, \text{ vel } \frac{\beta r}{g} \mp \frac{r}{t} g - 2b \sqcap \frac{\gamma q}{r} \quad g \sqcap \frac{-\frac{\beta r l}{2} + r^2 n - \lambda \frac{r^3}{t}}{\mp r \mp \frac{r l}{2t}}$$

$$EF \sqcap \frac{\mp \delta r^3 \mp r^3 n + \delta q g^2}{+ r g^2} \sqcap h \quad \psi r \sqcap \frac{\mp \frac{h^2 r}{t} \mp \frac{d q h g^2}{r} + 4b^2 g^2 + \frac{2\gamma q b}{r} g^2 - r^3 p}{\delta r - 4b g - \frac{\gamma q}{r} g}$$

$$5 \quad PK \sqcap \frac{\psi r}{g} + b$$

λ. et b. sunt quantitates arbitrarie.

$$K \sigma \sqcap \frac{2\psi r + \beta r}{2g} + \frac{g}{2}$$

$$\beta r \sqcap r m + \frac{l^2}{4}$$

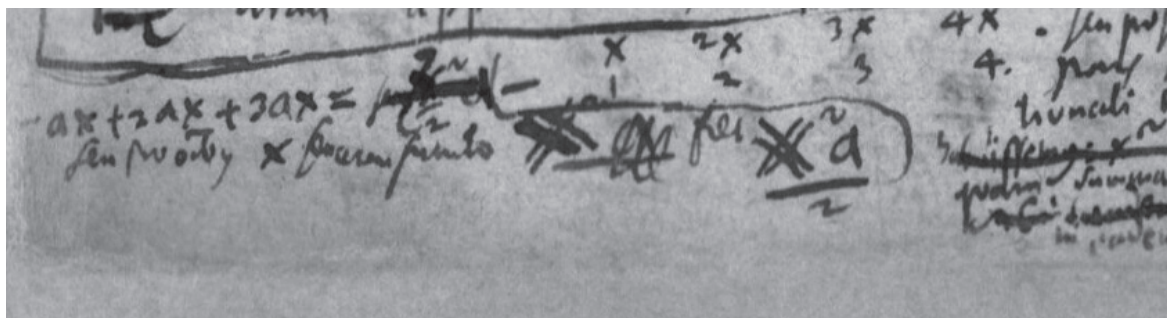
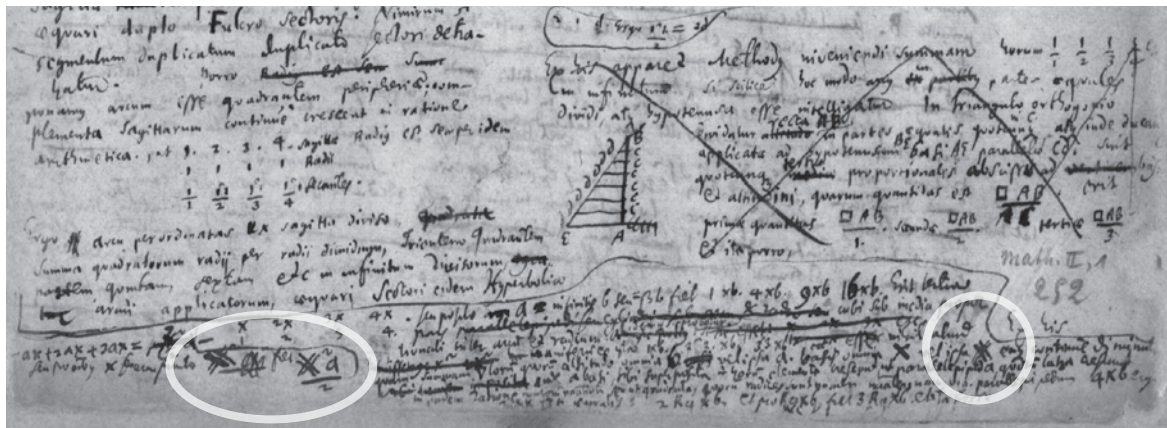
$$\sigma^2 \sqcap \frac{-\beta r l - g^2 l + 2r^2 n}{2g^2}$$

$$\delta r[g] \sqcap \beta r g \mp \frac{r}{t} g^3$$

Habemus ergo regulam generalem construendi problema solidum datum, ope sectio-

ϣ GREEK SMALL LETTER OMICRON UPSILON – LAA VII-7 p. 328

Leibniz used that symbol, which is derived from a Greek minuscule ligature ov, for denoting a variable, alongside with e.g. β or ω and latin lowercase letters.



XX DOUBLE X SYMBOL – LH 35 II 1, fol. 252r

In contrast to the simple symbol x Leibniz needed another symbol to denote “pro omnibus x ” (“for all x ”), meaning “the sum of x ’s”.

In our first proposal (L-2402n) we presented the glyph XX for it, but we have reviewed this character in the manuscript source and decided to revise the glyph so that it better represents the original. In that earlier stage the shape XX, which looks like a letter ligature, led to the idea whether a case pairing lowercase/capital would make sense here. After thorough consideration we came to the conclusion that XX is the much preferred reference glyph. It is *not* a ligature in the usual typographic sense but a more complex composition built of two X’s. Therefore case pairing would not make any sense at all. XX does never occur with any phonetic value, it exists only in a math context and has no reference to casing behaviour. (If someone would come up one day with a proposal for a language-related xx/XX ligature, that would be another matter.)

274	INFINITESIMALMATEMATIK 1670–1673	N. 162
1xb. 2^2 2xb. 3^2 3xb. esse nihil aliud quam summam ∇lorum quorum altitudo omnia b. vel ipsa a. basis omnia x. vel ipsa XX eque continue diminuta. Inde a basi, sibi su- perposita horum elementa crescunt ut parallelepipeda, quorum latera crescunt in eadem ratione numerorum naturalium seu ut quadrata, quorum radices sunt numeri naturales: nam v.g. parallelepipedum 4xb. ergo radix $\square^a$ aequalis: 2Rqxb. et pro Rq$\frac{1}{9}$xb, fiet 3 Rqxb. et ita porro.		

This unsuitable typographic solution in the LAA edition has been disregarded.
LAA VII-4 p. 274

incognitae vel indeterminatae, nec altera in alterius locum substitui potest, cum aequatio illa, quae relationem ipsius x ad y exprimat, quaeratur.

$$\frac{ZN^2}{x^2} - \frac{NM}{\varphi} = \frac{xa}{2}. \text{ quae si applicata ad ipsam unitatem constructionis intelligantur, fiet}$$

$$5 \quad \frac{x^2}{2} - \frac{a}{2} = \frac{ax^2}{4} \text{ momentum trianguli } CBNZC \text{ ex } CZ. \text{ Momentum vero rectanguli } CLNZ,$$

fiet $\frac{x^2y}{2}$. posita φ maxima = CL . a qua si auferatur momentum figurae ipsius $CLNBC$ restabit utique momentum trilinei quod supra. Momentum autem figurae habebitur,

$$\text{ductis } NL = y, \text{ in } x, \text{ fiet } \frac{CL^2y}{x^2y} - \text{summa omnium } \frac{\varphi \text{ variab. } y}{xy} = \frac{aCL^2}{4}.$$

At figuram talem invenire difficillimum haud dubie problema est, non minus quam
 10 propositum, quodque etiam pendet ex hyperbolae quadratura. Et memorabilia sunt eiusmodi problemata, quoniam iis similia nunquam hactenus proposita sunt.

Sed si y per suum valorem exprimamus, vereor ne aequatio fiat eiusdem cum eodem, tentandum tamen[:]

$$y = \frac{y-a}{2} + \text{differentia inter } \frac{xy}{2} \text{ et } \frac{xy-y}{2} \text{ per } x \text{ seu } \frac{yx-ax+x^2y-x^2y+xy}{2}. \text{ Ergo}$$

$$15 \quad \frac{a}{4} - \frac{x^2}{4} \varphi = \text{summa omnium } \underbrace{yx-ax+x^2y-x^2y+xy}_{2xy-ax}.$$

Atque ita habemus problemata quae in quadraturis fundantur, seu quae magnitudine quorundam spatiorum locum determinant, uti communia magnitudine rectorum.

Differentiae in abscissas ductae, conflant spatium ut $NZCBN$. Id ergo spatium hoc loco aequatur a in CL ducto, cum rectangulum QMB (quia QN et QM non differunt)

$$3 \quad ZN^2 - NM \text{ erg. } L \quad 6 \quad \text{posita } \varphi \text{ maxima} = CL. \text{ erg. } L \quad 8 \quad CL^2 y; \varphi \text{ variab. } y; a CL^2 \text{ erg. } L$$

4 φ ist die laufende Variable mit der oberen Grenze x . 14 f. Ergo: bei konsequentem Rechnen müssten die Vorzeichen auf der linken Seite vertauscht werden. φ und ψ bezeichnen hier die oberen Grenzen.

φ (LOWERCASE KURRENT X)

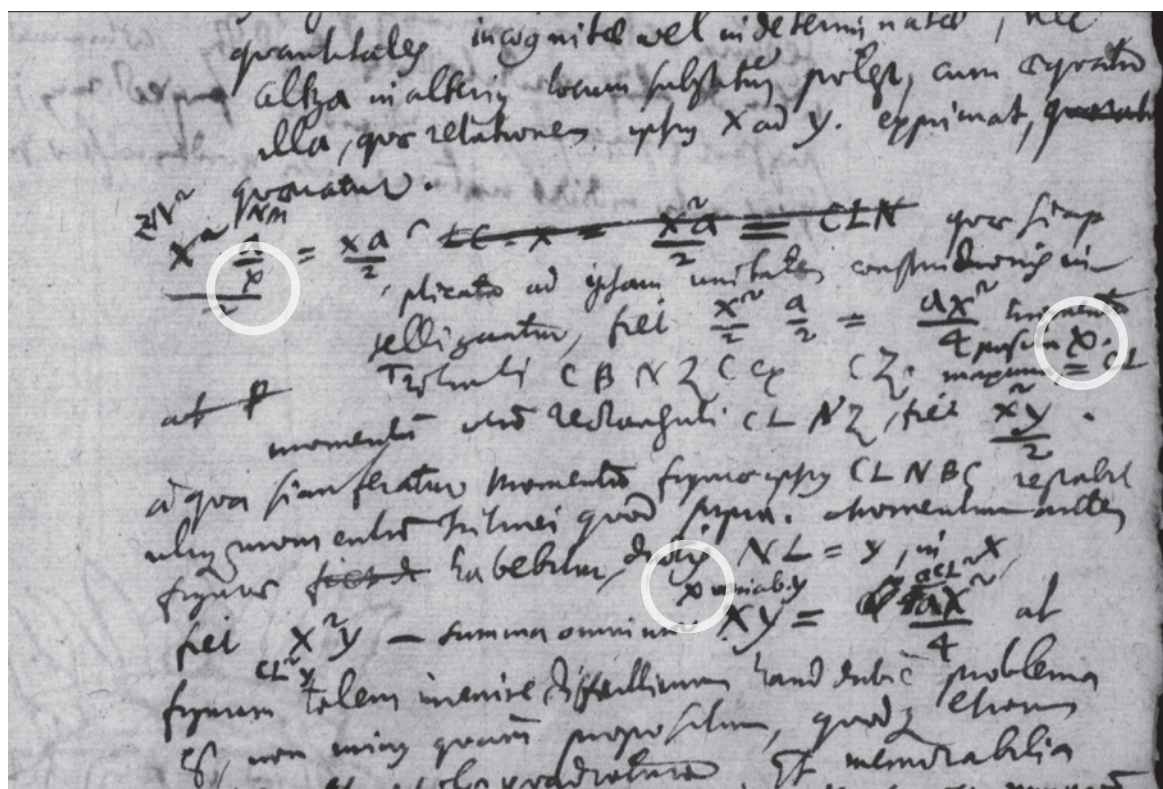
This page shows a deliberate distinction between the normal Latin x and a German kurrent-style φ . In this case, the kurrent φ is used in the context of analyzing properties of curves. In a modern correspondence, it could be described as a variable on which the curve depends and which is limited by a given x . – LAA VII-4 p. 824

We propose to encode this character as:

1D4CD FE02; kurrent style; # MATHEMATICAL SCRIPT SMALL X

– analogous to the character we proposed in the Cossic proposal (L-2533):

1D4CF FE02; kurrent style; # MATHEMATICAL SCRIPT SMALL Z



ϕ (LOWERCASE KURRENT X)

The corresponding text part, which shows a clear distinction between x and ϕ.

Ms. **LH 35 XIII 3**, fol. 251r.

5. Unicode Character Properties

```
1DB1D;ALPHA X SYMBOL;Sm;0;ON;;;;;N;;;;;
1DB1E;FUNCTIO DIFFERENTIATA SYMBOL;Sm;0;ON;;;;;N;;;;;
1DB1F;DOUBLE X SYMBOL;Sm;0;ON;;;;;N;;;;;
1DB20;DOUBLE SMALL SIGMA SYMBOL;Sm;0;ON;;;;;N;;;;;
1DB21;OMICRON UPSILON SYMBOL;Sm;0;ON;;;;;N;;;;;

1D4CD FE02; kurrent style; # MATHEMATICAL SCRIPT SMALL X
```

6. Bibliography

LAA – refers to: Leibniz, Gottfried Wilhelm: Sämtliche Schriften und Briefe. ('Leibniz-Akademie-Ausgabe', many volumes)

LH – refers to: Leibniz's original manuscripts, GWLB Hanover

Cajori, Florian: A history of mathematical notations. Chicago 1928

Probst, Siegmund: Édition des symboles de Leibniz. PDF. Hanover 2023 (presentation Paris 2023)

Rinner, Elisabeth: List of glyphs in Leib.mf. PDF. Hanover 2022

**ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹**

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest *Roadmaps*.

A. Administrative

1. Title:	Proposal to encode 6 letterlike symbols		
2. Requester's name:	Uwe Mayer, Siegmund Probst, David Rabouin, Elisabeth Rinner, Andreas Stötzner, Achim Trunk, Charlotte Wahl		
3. Requester type (Member body/Liaison/Individual contribution):	Individual (work group)		
4. Submission date:	2026-05-26		
5. Requester's reference (if applicable):	LUCPL-2619		
6. Choose one of the following:			
This is a complete proposal:			Yes
(or) More information will be provided later:			

B. Technical – General

1. Choose one of the following:			
a. This proposal is for a new script (set of characters):			No
Proposed name of script:			
b. The proposal is for addition of character(s) to an existing block:			(Yes)
Name of the existing block:	(new block:) 1DB00 Miscellaneous Symbols and Arrows Extend.		
2. Number of characters in proposal:			6
3. Proposed category (select one from below - see section 2.2 of P&P document):			
A-Contemporary	B.1-Specialized (small collection)	Yes	B.2-Specialized (large collection)
C-Major extinct	D-Attested extinct		E-Minor extinct
F-Archaic Hieroglyphic or Ideographic			G-Obscure or questionable usage symbols
4. Is a repertoire including character names provided?			Yes
a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?			Yes
b. Are the character shapes attached in a legible form suitable for review?			Yes
5. Fonts related:			
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?	Andreas Stötzner		
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):	Andreas Stötzner Gestaltung, Klaufügelweg 21, 88400 Biberach/R., Germany, as@signographie.de		
6. References:			
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?			Yes
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?			Yes
7. Special encoding issues:			
Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?			No

8. Additional Information:

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see Unicode Character Database (<http://www.unicode.org/reports/tr44/>) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

¹ Form number: N4502-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	Yes
If YES explain <i>see N5335R2 (L-2609), N5335R (L-2535), N5335 (L-2520); N5277 (L-2402n)</i>	
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?	Yes
If YES, with whom?	
Leibniz-Archiv, Forschungsstelle der Leibniz-Edition, Niedersächsische Landesbibliothek (GWLb), Hanover, Göttingen Academy of Science and Humanities in Lower Saxony (DE), Philium research group of CNRS (UMR 7219, laboratoire SPHERE) / Université de Paris VII; general: scholars, researchers, authors and editors working in the field of science history and upon editions of historic text corpora (e.g. of G. W. Leibniz, but also many others)	
If YES, available relevant documents: L-2409, L-2410	
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?	Yes
Reference:	
4. The context of use for the proposed characters (type of use; common or rare)	Common
Reference: mainly specialist usage, scholarly, worldwide	
5. Are the proposed characters in current use by the user community?	Yes
If YES, where? Reference: mainly Europe, Americas; other countries	
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?	No
If YES, is a rationale provided?	
If YES, reference:	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	No
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character?	No
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
11. Does the proposal include use of combining characters and/or use of composite sequences?	No
If YES, is a rationale for such use provided?	
If YES, reference:	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	
If YES, reference:	
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	No
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility characters?	No
If YES, are the equivalent corresponding unified ideographic characters identified?	
If YES, reference:	