

An updated survey of OpenType Math Fonts

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Quick Intro

- Ulrik Vieth
 - started using (La)T_EX in 1990
 - student job typesetting theoretical physics
 - produced 2500 pages of book manuscripts
 - attended T_EX conferences since 1992
 - involved in math font discussions since 1993
 - worked on math font prototype 1997–98
 - followed OpenType math fonts since 2008

15 years of OpenType math fonts

- OpenType math font technology
 - 2007: engine support in MS Office
 - 2008: engine support in Xe \TeX , XeLa \TeX
 - 2009: engine support in Lua \TeX , LuaLa \TeX , Con \TeX t
 - 2010: engines + macros + fonts in \TeX Live

15 years of OpenType math fonts

- OpenType math font support
 - 2007: Cambria Math (Microsoft)
 - 2008: Asana Math
 - 2010: XITS Math, from STIX 1.0
 - 2013, 2016: STIX 1.1, STIX Two

 - 2011: Latin Modern Math (GUST Team)
 - 2012–2015: T_EX Gyre Math (GUST Team)
 - 2011–2012: Lucida Math (TUG Project)

15 years of OpenType math fonts

- OpenType math font support
 - 2016: Libertinus Math, from Linux Libertine
 - 2018: Garamond Math, from EB Garamond
 - 2019: Erewhon Math, from Utopia
 - 2022: XCharter Math, from Charter
 - 2020: KpFonts Math (Roman + Sans)

 - 2016: GFS Neohellenic Math
 - 2018: Fira Math, from Fira Sans
 - 2020: Lato Math (unreleased)
 - 2023: Noto Math (under dev.)

 - 2019: New Computer Modern Math
 - 2022: Concrete Math
 - 2022: Euler Math, from Neo Euler

Choices of OpenType math fonts

- Choices of OpenType math fonts
 - 20+ choices of math fonts
 - 30+ individual math fonts (including variants)
- Coverage of traditional T_EX fonts
 - Latin Modern, New Computer Modern
 - Concrete Math, Euler Math
- Coverage of standard PostScript fonts
 - T_EX Gyre (Termes, Pagella, Schola, Bonum)
 - XITS/STIX/STIX Two (Times)
 - KpFonts (Palladio), Asana (pxfonts)
- Coverage of free PostScript fonts
 - Libertinus, Garamond (EB Garamond)
 - Erewhon (Utopia), XCharter (Charter), DejaVu

Choices of OpenType math fonts

- Choices of sans-serif math
 - GFS Neohellenic
 - Fira
 - Lato (unreleased)
 - Noto (under dev.)
 - KpSans
- Choices with multiple weights
 - New CM (Regular, Book)
 - KpRoman (Light, Regular)
- Choices of bold math
 - XITS (Bold)
 - Lucida (Demi)
 - Erewhon (Bold), XCharter (Bold)
 - KpRoman (Semi, Bold), KpSans (Bold)

Samples of OpenType math fonts

- Cambria Math (Microsoft)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

$$i\hbar \frac{\partial \psi}{\partial t} = \frac{1}{2m} \left(\frac{\hbar}{i} \nabla - q\mathbf{A}(\mathbf{r}) \right)^2 \psi + q\phi(\mathbf{r}) \psi$$

$$\gamma^\alpha \left(\frac{\hbar}{i} \partial_\alpha - qA_\alpha \right) \psi + m_0 c \psi = 0$$

$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- STIX Two Math

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- Lucida Math (Bigelow & Holmes, TUG)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- Libertinus Math

$$\Delta E - \frac{1}{c^2} \frac{\partial^2 E}{\partial t^2} = \frac{1}{\varepsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$\gamma^\alpha \left(\frac{\hbar}{i} \partial_\alpha - qA_\alpha \right) \psi + m_0 c \psi = 0$$

$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- Garamond Math (EB Garamond)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\varepsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- Erewhon Math (Utopia, Fourier-GUT)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- XCharter Math (Charter, MathDesign)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- KpRoman Math (URW Palladio)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

$$i\hbar \frac{\partial \psi}{\partial t} = \frac{1}{2m} \left(\frac{\hbar}{i} \nabla - q\mathbf{A}(\mathbf{r}) \right)^2 \psi + q\phi(\mathbf{r}) \psi$$

$$\gamma^\alpha \left(\frac{\hbar}{i} \partial_\alpha - qA_\alpha \right) \psi + m_0 c \psi = 0$$

$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- KpSans Math

$$\Delta E - \frac{1}{c^2} \frac{\partial^2 E}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial j}{\partial t}, \quad \Delta B - \frac{1}{c^2} \frac{\partial^2 B}{\partial t^2} = -\mu_0 \operatorname{rot} j$$

$$i\hbar \frac{\partial \psi}{\partial t} = \frac{1}{2m} \left(\frac{\hbar}{i} \nabla - qA(r) \right)^2 \psi + q\phi(r) \psi$$

$$\gamma^\alpha \left(\frac{\hbar}{i} \partial_\alpha - qA_\alpha \right) \psi + m_0 c \psi = 0$$

$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- GFS Neohellenic Math

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Recent OpenType math fonts

- Fira Math (Fira Sans)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

$$i\hbar \frac{\partial \psi}{\partial t} = \frac{1}{2m} \left(\frac{\hbar}{i} \nabla - q\mathbf{A}(\mathbf{r}) \right)^2 \psi + q\phi(\mathbf{r}) \psi$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Recent OpenType math fonts

- Lato Math (unreleased)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$\gamma^\alpha \left(\frac{\hbar}{i} \partial_\alpha - qA_\alpha \right) \psi + m_0 c \psi = 0$$

$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Recent OpenType math fonts

- Noto Math (in progress)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- New Computer Modern Math

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- Concrete Math

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

$$i\hbar \frac{\partial \psi}{\partial t} = \frac{1}{2m} \left(\frac{\hbar}{i} \nabla - q\mathbf{A}(\mathbf{r}) \right)^2 \psi + q\phi(\mathbf{r}) \psi$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Samples of OpenType math fonts

- Euler Math (Neo Euler)

$$\Delta \mathbf{E} - \frac{1}{c^2} \frac{\partial^2 \mathbf{E}}{\partial t^2} = \frac{1}{\epsilon_0} \nabla \lambda + \mu_0 \frac{\partial \mathbf{j}}{\partial t}, \quad \Delta \mathbf{B} - \frac{1}{c^2} \frac{\partial^2 \mathbf{B}}{\partial t^2} = -\mu_0 \operatorname{rot} \mathbf{j}$$

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$$R^{\mu\nu} - \frac{1}{2} R g^{\mu\nu} + \Lambda g^{\mu\nu} = -\frac{8\pi G}{c^2} M^{\mu\nu}$$

Completeness of math symbols

- Unicode math defines hundreds of math symbols (1270+)
 - big delimiters, big operators, radicals
 - over/under accents, wide over/under accents
 - regular symbols (ordinary, binary, relation)
- OpenType math fonts can choose what to implement
 - some fonts aim for completeness (1150+ symbols)
 - some fonts provide a smaller subset (550+ symbols)
 - any such subset is better than traditional 8-bit T_EX

Completeness of math symbols

- some fonts aim for completeness (1150+ symbols)

New Computer Modern	1270 symbols
STIX Two Math	1256 symbols
XITS Math	1253 symbols
Lato Math	1221 symbols
Asana Math	1211 symbols
GFS Neohellenic Math	1175 symbols
Noto Math	1162 symbols
Cambria Math	1157 symbols
Lucida Bright Math	951 symbols

Completeness of math symbols

- some fonts provide smaller subset (550+ symbols)

Garamond Math	604 symbols
Erewhon Math	601 symbols
Euler Math	591 symbols
Kp Math (2x)	589 symbols
XCharter Math	577 symbols
Libertinus Math	560 symbols
T _E X Gyre Math (5x)	556 symbols
Latin Modern Math	554 symbols
Fira Math	508 symbols
Concrete Math	499 symbols

Completeness of math symbols

- some bold fonts provide similar subset (450+ symbols)

XITS Math Bold 499 symbols

Kp Math Bold (2x) 495 symbols

Lucida Bright Math Demi 478 symbols

- some bold fonts provide minimal subset (100+ symbols)

Erewhon Math Bold 124 symbols

XCharter Math Bold 116 symbols

Completeness of math alphabets

- Unicode math defines dozens of math alphabets
 - main alphabet (4x Latin + 4x Greek + 2x numerals)
 - sans-serif (4x Latin + 2x Greek + 2x numerals)
 - Script (2x Latin)
 - Fraktur (2x Latin)
 - B-Bold (1x Latin + 1x numerals)
 - typewriter (1x Latin + 1x numerals)
- OpenType math fonts can choose what to implement
 - some fonts are missing specific alphabets
 - some fonts also provide extra alphabets

Completeness of math alphabets

- some fonts aim for completeness (1150+ alphabetic)

New Computer Modern	1170 alphabetic
STIX Two Math	1170 alphabetic (+ extra)
XITS Math	1170 alphabetic (+ extra)
Cambria Math	1170 alphabetic
Asana Math	1167 alphabetic
Noto Math	1164 alphabetic
TeX Gyre Math (5x)	1163 alphabetic

Completeness of math alphabets

- some fonts have specific gaps in alphabets

Libertinus Math	1145 alphabetic
Erewhon Math	1117 alphabetic
Latin Modern Math	1111 alphabetic
Garamond Math	1100 alphabetic (+ extra)
XCharter Math	1073 alphabetic
Kp Math (2x)	1070 alphabetic (+ extra)
Lucida Bright Math	1038 alphabetic (+ extra)

- What is missing?
 - Garamond: bold sans-serif italic lower Greek
 - Erewhon, Latin Modern: lower Script
 - XCharter, KpFonts: lower Script, lower BBold
 - Lucida: lower/bold Script, bold Fraktur, lower BBold

Completeness of math alphabets

- bold fonts sometimes leave out typewriter slots

XITS Math Bold 1093 alphabetic

KpFonts Math Bold 1066 alphabetic

Erewhon Bold 1001 alphabetic

XCharter Math Bold 1001 alphabetic

Lucida Bright Math Demi 961 alphabetic

- What is missing?
 - KpFonts, Erewhon, XCharter: lower Script, lower BBold
 - Lucida: lower Script, all Fraktur, lower BBold

Design issues: Choices of matching fonts

- Unicode math combines multiple alphabets (e.g. Serif, Sans Serif, Script, Fraktur, BBold)
- OpenType math fonts need to choose matching fonts
 - no problem for comprehensive families
 - non-trivial design issue for most families
- Choosing a matching sans-serif font
 - Sans-serif should be clearly distinguishable
 - Sans-serif should not be too incompatible
 - Sans-serif should match weight, width, angle, shapes
- Choosing a matching Script, Fraktur or BBold font
 - Script and Fraktur should match expected style
 - BBold can sometimes be constructed

Choices of Script, Fraktur, BBold Fonts

- Script/Calligraphic fonts
 - most Script/Calligraphic fonts fall into 2 groups
 - some fonts provide both (using stylistc sets)
 - some fonts are missing lowercase Script
- Fraktur fonts
 - most Fraktur fonts are very similar
 - some Fraktur/Blackletter fonts are very unique
- BBold fonts
 - most BBold fonts fall into 2 groups (serif or sans-serif)
 - some BBold fonts look constructed (hollowed out)
 - some fonts are missing lowercase or numerals

Choices of Script/Calligraphic fonts

- some fonts use Calligraphic style

GFS Neohellenic Math	<i>ABCXYZ</i>
Concrete Math	<i>ABCXYZ</i>
Garamond Math (ss03)	<i>ABCXYZ</i>
KpRoman, KpSans (ss01)	<i>ABCXYZ</i>
XITS Math (ss01)	<i>ABCXYZ</i>
Lucida Math (ss04)	<i>ABCXYZ</i>
Euler Math	<i>ABCXYZ</i>
Latin Modern Math	<i>ABCXYZ</i>
New Computer Modern	<i>ABCXYZabcdefghijklmnopqrstuvwxyz</i>
STIX Two Math	<i>ABCXYZabcdefghijklmnopqrstuvwxyz</i>
Cambria Math	<i>ABCXYZabcdefghijklmnopqrstuvwxyz</i>
T _E X Gyre DejaVu Math	<i>ABCXYZabcdefghijklmnopqrstuvwxyz</i>

Choices of Script/Calligraphic fonts

- some fonts use Formal Script style

Erewhon Math	<i>ABCXYZ</i>
XCharter Math	<i>ABCXYZ</i>
KpRoman, KpSans Math	<i>ABCXYZ</i>
STIX Two Math (ss01)	<i>ABCXYZ</i>
XITS Math	<i>ABCXYZ abcxyz</i>
Libertinus Math	<i>ABCXYZ abcxyz</i>
Garamond Math	<i>ABCXYZ abcxyz</i>
TEX Gyre Termes Math	<i>ABCXYZ abcxyz</i>
TEX Gyre Schola Math	<i>ABCXYZ abcxyz</i>
Lucida Bright Math	<i>ABCXYZ abcxyz</i>

- some fonts use very unique style

TEX Gyre Pagella Math	<i>ABCXYZ abcxyz</i>
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Choices of Fraktur/Blackletter fonts

- most fonts use Fraktur style

Latin Modern Math	ABCX _Y Zabcx _{yz}
New Computer Modern	ABCX _Y Zabcx _{yz}
Concrete, Euler Math	ABCX _Y Zabcx _{yz}
Erehwon, XCharter Math	ABCX _Y Zabcx _{yz}
TeX Gyre Pagella Math	ABCX _Y Zabcx _{yz}
TeX Gyre Termes Math	ABCX _Y Zabcx _{yz}
Garamond Math	ABCX _Y Zabcx _{yz}
Cambria Math	ABCX _Y Zabcx _{yz}
Libertinus Math	ABCX _Y Zabcx _{yz}
STIX Two Math	ABCX _Y Zabcx _{yz}
XITS Math	ABCX _Y Zabcx _{yz}
TeX Gyre Schola Math	ABCX _Y Zabcx _{yz}
TeX Gyre DejaVu Math	ABCX _Y Zabcx _{yz}

Choices of Fraktur/Blackletter fonts

- some fonts use Blackletter style

GFS Neohellenic Math	ΑΒΓΧΥΖ
Lucida Bright Math	𝔸𝔹𝔠𝔡𝔼𝔽𝔾𝔞𝔟𝔠𝔡𝔼𝔽
KpRoman, KpSans Math	𝔸𝔹𝔠𝔡𝔼𝔽𝔾𝔞𝔟𝔠𝔡𝔼𝔽

Choices of BBold fonts

- some fonts use serif BBold style

New Computer Modern	ABCNOPQRXYZabc012
Concrete Math	ABCNOPQRXYZ
XCharter Math	ABCNOPQRXYZ
KpRoman Math	ABCNOPQRXYZ
Garamond Math	ABCNOPQRXYZabc012
Libertinus Math	ABCNOPQRXYZabc012
Cambria Math	ABCNOPQRXYZabc012
T _E X Gyre Schola Math	ABCNOPQRXYZabc012
T _E X Gyre Termes Math	ABCNOPQRXYZabc012
T _E X Gyre Pagella Math	ABCNOPQRXYZabc012
T _E X Gyre DejaVu Math	ABCNOPQRXYZabc012

Conclusions

- Where are we?
 - OpenType math technology established for 15+ years
 - OpenType math fonts provide advantages to users
 - OpenType math fonts pose challenges to developers
- How are we doing?
 - several recent additions or new releases of fonts
 - choices of math fonts have grown to 20+ fonts
 - coverage of symbols and alphabets has improved
 - some fonts are still lacking at the technical level
 - some fonts may need another round of revisions
 - most fonts come with specific L^AT_EX packages
 - all fonts can be used with generic packages

Conclusions

- Is OpenType math ready for use?
 - Completeness depends on what you are using
 - Stability depends on how you are using it
- Font support varies a lot
 - some font projects have frequent releases
 - some font projects take years to next release
 - some system fonts are updated without notice
 - some bugs get fixed eventually, but may take years