

CMSS - Default

- Text: CMSS text
Math: CMSS italic¹ + CMR math symbols
- Preamble in this document:

```
\documentclass{beamer} % Default = "sans" option
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

- Miss-matches with CMR math symbols!

¹Used as **math italic**.

CMSS - Euler VM (1)

- Text: CMSS
Math: CMSS italic + Euler VM symbols
- Preamble in this document:

```
\documentclass{beamer} % No option
\usepackage{eulervm} % Euler VM fonts
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H'_n{}^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

CMSS - Euler VM (2)

- Text: CMSS
Math: Euler VM math (by `[mathserif]` option)
- Preamble in this document:

```
\documentclass[mathserif]{beamer} %
\usepackage{eulervm} %
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H'_n{}^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

- Better than the previous one?

CMR (Computer Modern Roman)

- Text & Math : CMR
- Preamble in this document:

```
\documentclass[serif]{beamer} % "serif" option for CMR
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

- Who is going to use CMR in presentation? *Should be avoided!*

CM Bright

- Text: CM Bright
Math: CM Bright math¹
- Preamble in this document:

```
\documentclass{beamer} % No options
\usepackage{cmbright}
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

- Is 'cmbright' *too thin*?

¹Some symbols are taken from CMR math symbols.

Concrete - Euler VM (1)

- Text: Concrete
Math: Concrete italic + Euler VM symbols
- Preamble in this document:

```
\documentclass[serif]{beamer} %
\usepackage[T1]{fontenc}      % Needed for Type1 Concrete
\usepackage{concrete}        % Loads Concrete + Euler VM
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H'_n{}^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

Concrete - Euler VM (2)

- Text: Concrete
Math: Euler VM math
- Preamble in this document:

```
\documentclass[serif,professionalfont]{beamer} %
\usepackage[T1]{fontenc}           % Needed for Type1 Concrete
\usepackage{concrete}
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

Concrete - Concmath

- Text: Concrete
Math: Concrete italic¹ + Concmath symbols ([MetaFont](#)²)
- Preamble in this document:

```
\documentclass[serif]{beamer} %
\usepackage[T1]{fontenc}      % Needed for Type1 Concrete
\usepackage{concmath}        % Concrete + Concmath
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

¹If you add **professionalfont**, all math is set in **MetaFont**!

²Now Adobe Reader v6.x displays Type3 fonts very well.

Helvetica - Euler VM (1)

- Text: Helvetica
Math: Helvetica italic + Euler VM symbols
- Preamble in this document:

```
\documentclass{beamer}           %
\usepackage{eulervm}            %
\usepackage[scaled]{helvet}    % With "scaled" option
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H'_n{}^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

Helvetica - Euler VM (2)

- Text: Helvetica
Math: Euler VM math
- Preamble in this document:

```
\documentclass[mathserif]{beamer} % "sans" is text default
\usepackage{eulervm} %
\usepackage[scaled]{helvet} % With "scaled" option
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

Kerkis Sans and Math

- Text: Kerkis sans¹
Math: Kerkis math²
- Preamble in this document:

```
\documentclass[sans,mathserif]{beamer}
\usepackage{kerkis}                % Kerkis roman and sans
\usepackage{kmath}                 % Kerkis math
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

¹Kerkis roman is based on Bookman while Kerkis sans is based on Avant Garde.

²Mixture of Bookman and CMR. Not complete yet!

Palatino - Euler VM (1)

- Text: Palatino
Math: Palatino italic + Euler VM symbols
- Hermann Zapf designed both fonts! Should work well!
- Preamble in this document:

```
\documentclass[serif]{beamer} %
\usepackage{pxfonts}          % Or palatino or mathpazo
\usepackage{eulervm}         %
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

Palatino - Euler VM (2)

- Text: Palatino
Math: Euler VM math¹
- Preamble in this document:

```
\documentclass[serif,mathserif,professionalfont]{beamer} %
\usepackage{pxfonts}
\usepackage{eulervm}
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H'_n{}^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

¹By loading professionalfont option

Palatino - mathpazo

- Text: Palatino
Math: mathpazo with CMR math symbols
- Preamble in this document:

```
\documentclass[serif]{beamer} %  
\usepackage{mathpazo} %
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

Palatino - pxfonts

- Text: Palatino
Math: pxfonts¹
- Preamble in this document:

```
\documentclass[serif]{beamer} %
\usepackage{pxfonts}          %
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H'_n{}^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

- Equations are *too tight!* This is also true for txfonts.

¹Has a good monospaced teletype font, pxtt (=txtt).

Times

- Text + Math: Times
- Preamble in this document:¹

```
\documentclass[serif]{beamer} %
\usepackage[cmtt]{wrisym}      % Mathematica v4.2 VF pack
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp\left[iR/a\left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi\right)\right]}{(k^2 a^2 - \gamma^2)^{3/4} H'_n{}^{(1)}\left(\sqrt{k^2 a^2 - \gamma^2}\right)} d\gamma$$

- In general, Times is *not* a good font for screen presentation

¹You can also use `txfonts`, `mathptmx`, or other Times math font pack.

Utopia - Fourier

- Text: Utopia
Math: Fourier math¹ based on Utopia
- Preamble in this document:

```
\documentclass[serif]{beamer} %
\usepackage[T1]{fontenc}      % Needed
\usepackage{fourier}          %
```

- Example:

$$p(R, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp \left[iR/a \left(\sqrt{k^2 a^2 - \gamma^2} \cos \phi \right) \right]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)} \left(\sqrt{k^2 a^2 - \gamma^2} \right)} d\gamma$$

¹You can get it from [CTAN:fonts](#).

Bradley Hand - mathpazo

- Text: Bradley Hand¹
Math: mathpazo symbols
- Preamble in this document:

```
\documentclass[serif]{beamer} %
\usepackage{mathpazo} % Mathpazo symbols
\renewcommand{\rmdefault}{ibh} % Bradley Hand ITC
```

- Example:

$$p(\mathcal{R}, \phi) \sim \int_{-\infty}^{\infty} \frac{\tilde{W}_n(\gamma) \exp[i\mathcal{R}/a (\sqrt{k^2 a^2 - \gamma^2} \cos \phi)]}{(k^2 a^2 - \gamma^2)^{3/4} H_n^{(1)}(\sqrt{k^2 a^2 - \gamma^2})} d\gamma$$

- May be useful for making homework solutions!

¹Bradley Hand ITC (in TTF) comes with MS Windows.