Embedding LaTeX Math in AsciiDoc dblatex documents

REVISION HISTORY			
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Contents

You can include LaTeX math equations in AsciiDoc documents that are processed by dblatex. The AsciiDoc *latexmath* macros and passthrough blocks generate DocBook *inlineequation*, *informalequation* and *equation* elements containing the LaTeX markup which is processed by *dblatex*.

1 Inline equations

This markup:

```
An inline equation latexmath:[$C = \alpha + \beta Y^{\gamma} + \epsilon$]
using the 'latexmath' inline macro.
```

Renders:

An inline equation $C = \alpha + \beta Y^{\gamma} + \epsilon$ using the *latexmath* inline macro.

2 Informal equations

Informal (untitled) equations are generated with a *latexmath* style passthrough delimited block. This markup:

```
[latexmath]
++++++++++++++++++++++++++++++++++++++++++++
\[C = \alpha + \beta Y^{\gamma} + \epsilon\]
++++++++++++++++++++++++++++++++++++++++++++
```

Renders:

$$C = \alpha + \beta Y^{\gamma} + \epsilon$$

Functionally identical block macro syntax:

```
latexmath::[\[C = \alpha + \beta Y^{\gamma} + \epsilon\]]
```

Renders:

$$C = \alpha + \beta Y^{\gamma} + \epsilon$$

3 Formal equations

Formal equations are titled and are generated with a *latexmath* style passthrough delimited block.

This markup:

```
.First equation
[latexmath]
++++++++++++++++++++++++++++++++++++++++++++
\[C = \alpha + \beta Y^{\gamma} + \epsilon\]
++++++++++++++++++++++++++++++++++++++++++++
```

Renders:

$$C = \alpha + \beta Y^{\gamma} + \epsilon$$

EQUATION 3.1: First equation

This markup:

```
.Matrix
[latexmath]
++++++++++++++++++++++++++++++++++++++++++++
\[ P^{e \rightarrow c}= \left[
  \begin{array}{*{3}{r@{}l}}
  & \cos \theta & & \sin \theta \sin \varphi & & \sin \theta \cos \varphi\\

  & \sin \theta \sin \psi
  & & \cos \varphi \cos \psi - \cos \theta \sin \varphi \sin \psi
  & - & \sin \varphi \cos \psi - \cos \theta \cos \varphi \sin \psi\\

  - & \sin \theta \cos \psi
  & & \cos \varphi \sin \psi + \cos \theta \sin \varphi \cos \psi
  & - & \sin \varphi \sin \psi + \cos \theta \cos \varphi \cos \psi\\
  \end{array}
\right] \]
++++++++++++++++++++++++++++++++++++++++++++
```

Renders:

$$P^{e \rightarrow c} = \left[\begin{array}{*{3}{r@{}l}} & \cos \theta & & \sin \theta \sin \varphi & & \sin \theta \cos \varphi \\ & \sin \theta \sin \psi & & \cos \varphi \cos \psi - \cos \theta \sin \varphi \sin \psi & - & \sin \varphi \cos \psi - \cos \theta \cos \varphi \sin \psi \\ - & \sin \theta \cos \psi & & \cos \varphi \sin \psi + \cos \theta \sin \varphi \cos \psi & - & \sin \varphi \sin \psi + \cos \theta \cos \varphi \cos \psi \end{array} \right]$$

EQUATION 3.2: Matrix