Long title

Ivan Toftul, Your Collegues, ...

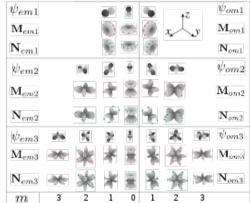
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Introduction

M .

- One
- Two



Spherical multipoles

Results

Conclusion

References

References

Second slide in introduction

$$\int \mathrm{d}x f(x)$$

First slide with results

From¹ we have

$$\sin(x) \approx x$$

Example

For x = 0.1 we have

$$sin(0.1) = 0.09983341664682815$$

Second slide with results

$$\sin(x) \approx x + \frac{x^3}{3!}$$

Conclusions

- 1. One
- 2. Two

References

1. M. E. Muldoon, A. A. Ungar, *Math. Mag.* **69**, 3–14, ISSN: 0025-570X (Feb. 1996).

$\hat{\chi}^{(2)}_{\rm 2D\ TMDC}$ tensor in cylindrical coordinates

$$\chi^{(2)}_{\{\ell nm\}_{\rm cyl}} = R_{\ell i}^{-1} R_{nj}^{-1} R_{mk}^{-1} \chi^{(2)}_{\{ijk\}_{\rm cart}}, \qquad R^{-1}(\varphi) = \begin{pmatrix} \cos(\varphi) & \sin(\varphi) & 0 \\ -\sin(\varphi) & \cos(\varphi) & 0 \\ 0 & 0 & 1 \end{pmatrix}$$

$$\begin{split} \chi_{\text{2D TMDC}}^{(2)} &= \tilde{\chi}_{\text{2D}}^{\text{TMDC}} \left[\left[\begin{array}{cccc} 0 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 \\ 0 & 0 & 0 \end{array} \right] \left[\begin{array}{ccccc} -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 0 \end{array} \right] \left[\begin{array}{ccccc} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{array} \right] \right]_{\left(\hat{\mathbf{x}}\hat{\mathbf{y}}\hat{\mathbf{z}}\right)} \\ &= \tilde{\chi}_{\text{2D}}^{\text{TMDC}} \left[\left[\begin{array}{ccccc} -\sin(3\varphi) & -\cos(3\varphi) & 0 \\ -\cos(3\varphi) & \sin(3\varphi) & 0 \\ 0 & 0 & 0 \end{array} \right] \left[\begin{array}{ccccc} -\cos(3\varphi) & \sin(3\varphi) & 0 \\ \sin(3\varphi) & \cos(3\varphi) & 0 \\ 0 & 0 & 0 \end{array} \right] \left[\begin{array}{ccccc} 0 & 0 & 0 \\ 0 & 0 & 0 \end{array} \right] \right]_{\left(\hat{\mathbf{r}},\hat{\boldsymbol{\varphi}},\hat{\boldsymbol{z}}\right)} \\ &= \tilde{\chi}_{\text{2D}}^{\text{TMDC}} \left[\frac{1}{2} e^{-3i\varphi} \left(\hat{\boldsymbol{\varphi}}\hat{\boldsymbol{\varphi}}\hat{\boldsymbol{\varphi}} + i\hat{\boldsymbol{\varphi}}\hat{\boldsymbol{\varphi}}\hat{\boldsymbol{r}} + i\hat{\boldsymbol{\varphi}}\hat{\boldsymbol{r}}\hat{\boldsymbol{\varphi}} - 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