P260.3 Working Group Minutes of June 18, 2024 from 10 am to 12 pm PDT Webex Teleconference Meeting

1. Call to Order

Call to order at 11:07 am (PDT).

2. Roll Call of Attendees

Last, First Name	Affiliation	Member Status Voting (VM) Non-Voting (NVM)	Present
Curey, Randy (Chair)	Northrop Grumman	VM	Yes
Balma, Peter	Retired, Self	VM	No
Brown, Richard	NPL	VM	Yes
Edwards, Doug (Secretary)	Siemens	VM	Yes
Flowers, Keith	Siemens	VM	Yes
Shirley, Eric	NIST	VM	Yes
Webb, John	ABB	VM	Yes
Sullivan, Paul	DuPont	NVM	Yes

3. Determination of Quorum

Quorum was met and maintained through meeting.

4. Approval of Agenda

No objections. Agenda was approved by acclamation.

5. Approval of Previous Meeting Minutes

<u>P260.3 WG Minutes (2024-05-20.R1)</u> No objections. Minutes were approved by acclamation.

6. Call for Patents / Copyright

- Chair reminded all of the IEEE-SA Patent policy.
- Chair reminded all of the IEEE-SA Copyright policy.
- No Patent or Copyright issues reported.

7. Participant behavior

• Chair reminded all of the IEEE Behavior – Individual Method principles.

8. Chair's Remarks

No remarks.

9. Continue review of draft – creating <u>D10</u> draft.

Started back at 11.7 Vectors.

a) 11.7.3: The font for the "A" are different. This highlighted issue concerning fonts.

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Global decision for document. Goal is to convert the symbols to be the font used the Equation editor. Conversion made to an equation by using hot-key Alt=.

- b) 11.7.7 and 11.7.8: Find that the Bold versus not-Bold for the i, j, and k is not easily seen. No options for us to correct.
- c) 11.7.7 and 11.7.8: Should the i, j, and k be before or after the partial derivative? Decision: Leaving as is in previous version.
- d) 11.7 nabla and del: General clarification. If result is a Vector, the math function, e.g. "grad" is bold. If the result is a Scalar, the math function, e.g. "div" is not bold.
- e) 11.7.10 rot: Corrected a "z" to a "y". $= \left(\frac{\partial F_z}{\partial y} \frac{\partial F_y}{\partial z}\right) \mathbf{i} +$
- f) 11.7.11 Laplace operator: Various of the "f" in the equation should NOT be superscript. $_$

$$\nabla^2 f \equiv \frac{\partial^2 f}{\partial x^2} + \frac{\partial^2 f}{\partial y^2} + \frac{\partial^2 f}{\partial z^2}$$

g) 11.8.1 – matrix: Original document had error for the last item in the Matrix.

Original had

Draft 9 had

$$\begin{bmatrix} a_{11} & a_{12} & \dots & a_{11} \\ a_{21} & a_{22} & \dots & a_{21} \\ a_{31} & a_{32} & \dots & a_{31} \\ \vdots & \vdots & \ddots & \vdots \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{m1} \end{bmatrix} \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ a_{31} & a_{32} & \dots & a_{3n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix}$$

- h) 11.8.4 identity matrix: Changed NB to "Note:..."
- i) 11.8.6 conjugate: Subscript changed from "ji" to "ij". This correction matches original.
- j) 11.8.7 absolute value: Subscript changed from "ji" to "ij". This correction matches original.
- k) 11.8.8 trace: Subscript mn corrected to nn.

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- I) 11.8.10 cofactor: Superscript "i+j" made italics.
- m) 11.8.11 & 11.8.12 Action Item: Eric Shirley to confirm details for the terms adjoint vs adjugate. Also, review what is the appropriate symbol and correct in various table locations.
- n) 11.9.1 open interval: Original document had a, x, and b as bold. No reason for this.
- o) 11.9.10, 11.9.11, and 11.9.12: Action Item review Unicode symbols and website (per discussions) URL:

 $\frac{https://math.stackexchange.com/questions/864606/difference-between-\%E2\%89\%88-85\%82\%89\%83-and-\%E2\%89\%85$

Discussion is for the Tilda symbol with no (0), one (1), or two (2) lines under the Tilda.

- p) Start back at:
 - 11.9.14 left hand derivative

Also, follow-up on:

- 11.8.11/11.8.12 and
- 11.9.10/11.9.11/11.9.12.
- **10. Next Meeting –** July 2, 2024, 11:00 am to 1:00 pm (pdt)
- 11. Adjourned at 1:00 pm (pdt)

Reported by, Doug Edwards P260.3 Secretary