

**P260.3 Working Group
Minutes of November 19, 2024 from 11 am to 1 pm PDT
Webex Teleconference Meeting**

1. Call to Order

Call to order at 11:03 am (PST).

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	Yes
Brown, Richard	NPL	VM	Yes
Edwards, Doug (Secretary)	Siemens	VM	Yes
Flowers, Keith	Siemens	VM	No
Shirley, Eric	NIST	VM	Yes
Webb, John	ABB	VM	No
Sullivan, Paul	DuPont	NVM	No

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

[P260.3 WG Minutes \(2024-08-20.R1\)](#)

Previous minutes header noted time as 11 am to **11** pm (PDT). Meeting was corrected to end at **1** pm (PDT). Minutes were approved by acclamation with this correction of the times in the header.

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.

All section/bullet numbers are based on the D12 number.

Per previous minutes, started back at **11.10.6 – cis**.

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a) D12: 11.10.6:

i changed to j :

11.10.6	cis	cis θ	$\cos \theta + j \sin \theta \equiv e^{j\theta}$
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b) D12: 11.10.8: *modulus* of Z ;

- Semicolon changed to colon.
- Based in comparison to balance of document, words derives from Latin, terms such as "*modulus*" are in italics.

c) D12: 11.10.9:

Removed italics of "Im" and "Re". $\overline{\arctan\left(\frac{\text{Im } z}{\text{Re } z}\right)}$

d) D12: 11.10.11: exp: Changed note - deleted "For a different meaning ..."
This is NOT a different meaning.

$e^z \equiv e^x \text{ cis } y$, where $z \triangleq x + jy$ (see 11.5.2.1.1 and 11.10.6).

e) Discussion of "(see XXX)" notes throughout document: Plan is to only add cross-references notes for functions that are judged to be less common but NOT for all functions.

f) D12: 11.10.14: sgn: Editorial – removed final semicolon.

g) D12: 11.10.15: Corrected symbol. First column corrected to match second column.

h) D12: 11.11.1.4: P: Various italics and bracket corrections.

$P_n^{(\alpha, \beta)}(x)$ **Jacobi polynomial: solution of**
 $(1 - x^2)f''(x) - \{\alpha - \beta + (\alpha + \beta + 2)x\}f'(x) + n(n + \alpha + \beta + 1)f(x) = 0$ ($\alpha, \beta > -1$);
 $P_n^{(-\frac{1}{2}, -\frac{1}{2})}(x) \equiv T_n(x)$, $P_n^{(0,0)}(x) \equiv P_n(x)$,
 $P_n^{(\frac{1}{2}, \frac{1}{2})}(x) \equiv U_n(x)$

i) D12: 11.11.1.5 L: Various italics. Also, semicolon changed to colon.

$L_n^{(\alpha)}(x)$ **Laguerre polynomial (associated): solution of**
 $xf''(x) - (\alpha + 1 - x)f'(x) + nf(x) = 0$ ($\alpha > -1$);
 $L_n^{(m)}(x) \equiv (-1)^m \frac{d^m}{dx^m} L_{n+m}(x)$;
 $m = 0, 1, 2, \dots, n$; $L_n(x) \triangleq L_n^{(0)}(x)$

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- j) D12: 11.11.3.2: Y: "cos" changed to not italics.
- k) D12: 11. 11.3.3: Modified Bessel: Corrected as follows
modified Bessel function of the 1st kind of order n :
solution of $z^2 f''(z) + z f'(z) - (z^2 + n^2) f(z) = 0$
- l) D12: 11. 11.3.5 Hankel function: i changed to j
Bessel function of the 3rd kind of order n [often called
Hankel function]: $J_n(z) + i^{2\nu-1} Y_n(z)$; defined for $\nu = 1, 2$
- m) D12: 11. 11.3.6, 7, 8, & 9: i changed to j
- n) D12: 11. 11.3.7: i changed to j
Kelvin function of the 1st kind of order n (imaginary):
 $\text{Im} \left\{ J_n \left(j^{\frac{3}{2}} x \right) \right\}$ for real $n, x > 0$ (see 11.10.5)
- o) D12: 11. 11.3.10 & 11: The first column – Future correction so that
reference number shows. Added note for future correction.
- p) D12: 11. 11.3.8 & .11: Revised font to match other Sign or Symbols
(column 2).
- q) D12: 11. 11.4.1.1 & .3: Need to confirm last equation. It matches the
published document, but is not obvious. Believe that the m should be
squared.
- r) D12: 11. 11.4.1.6: Need to confirm for 3rd and last equations. Believe that
the m (both 3rd and last equations) should be squared.
- s) D12: 11. 11.4.2.1: am – revised font (2nd column).
- t) Start back at 11.11.4.4 – Start back.

10. Next Meeting – Per Meeting Poll – only option prior to end of the 2024 is 3rd week.

11. Adjourned at 12:53 pm (pst).

Reported by,
Doug Edwards
P260.3 Secretary