Tx/Ch/Rx Methodology

IEEE 802.3ap

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Palkert_01_0505

Supporters

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- Charles Moore
- Brian Seemann
- Tom Palkert
- Fulvio Spagna
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- Dave Koenen
- Joel Goergen
- Rob Brink
- Mike Oltmanns
- Shannon Sawyer
- Gautam Patel
- Pravin Patel
- Schelto
- Ilango Ganga
- Bill Peters
- Mike Lerer
- Justin Gaither
- Cathy Liu
- Steve Anderson

Situation

- Present proposals available:
  - Normative Tx (Gaither, Healey)
  - Informative channel (D'Ambrosia/Mellitz)
  - Normative channel (Moore, Popescu, Mellitz, StatEye)
  - Normative Rx (Abler)
- Methodology complexity
  - Tx Spec: straightforward
  - Channel spec: complex
  - Rx spec: could be complex, could be simple

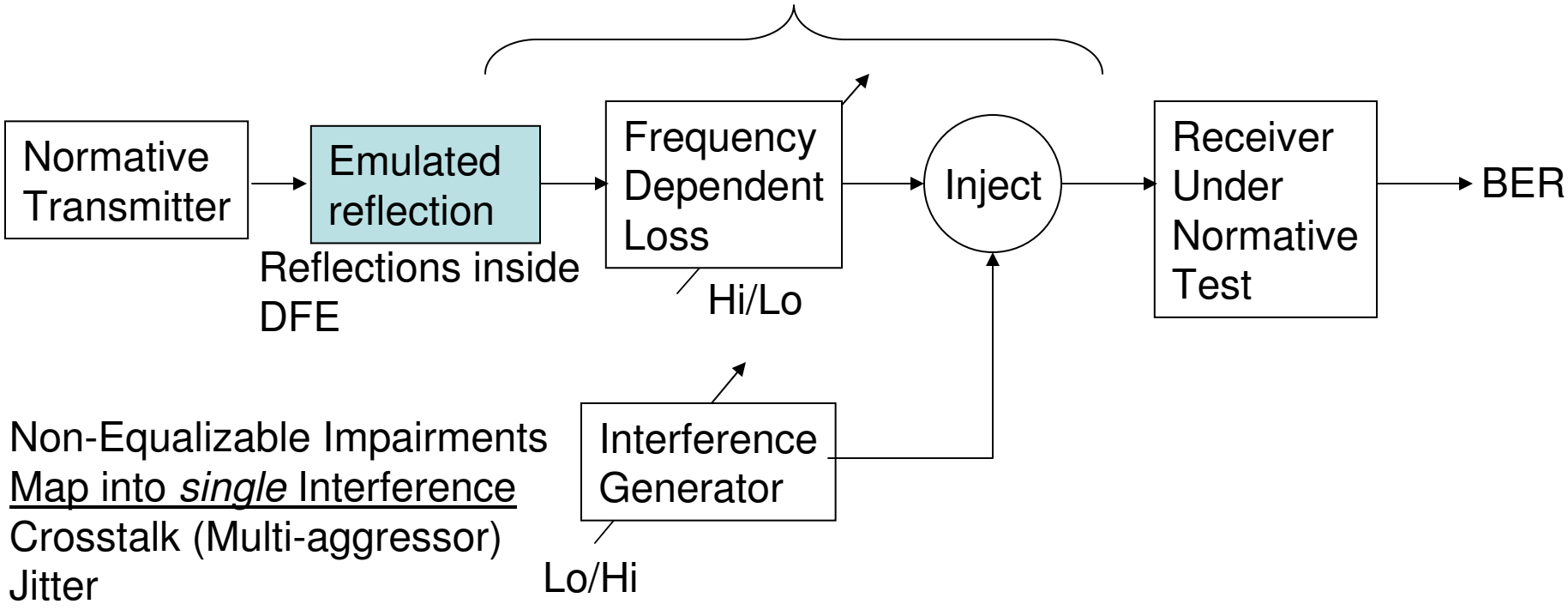
Specify 2/3 or 3/3?

- 3/3:
  - Over constrains solution space
  - Channel aspect difficult to constrain
    - Variability
    - Interdependence
- 2/3:
  - Historical perspective –XAUI, CX4, T11
  - 3rd aspect inferred: maximal flexibility for that aspect

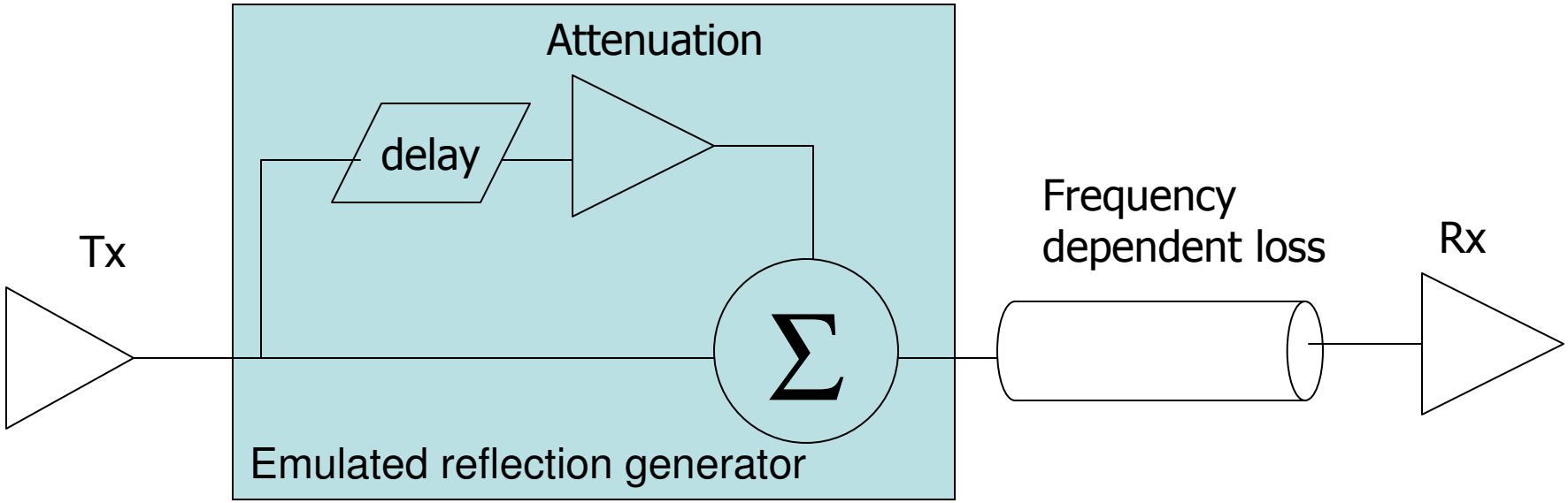
- Can we decide on approach now, and numbers later?

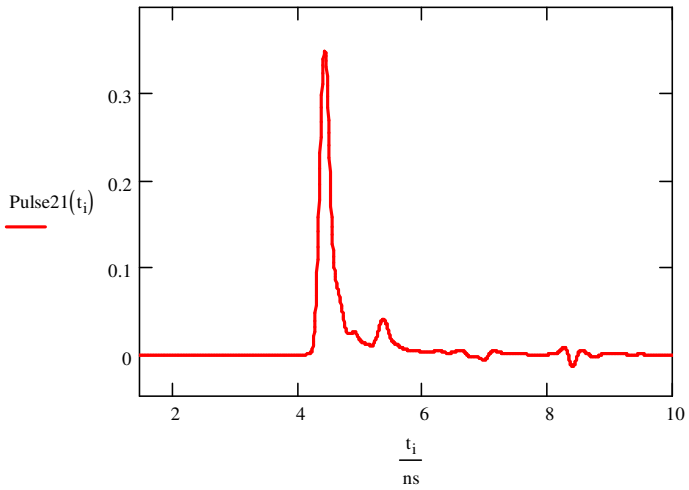
Normative Tx & Rx

Maximizes Channel Solution Space
& Allows System Trade-offs



Example of Emulated reflection generator





Motion

- Move that channel characterization be defined using:
  - Attenuation Limits *based on goergen equation*
  - Deviation Limits
  - Crosstalk Limits
    - Single Aggressor
    - ACR

Motion

- Move that Receiver compliance testing be based on moore_01_0105 as modified in Palkert_01_0505 (This presentation).

Motion

- Move that 802.3ap compliance methodology be based on 2/3 approach:
  - Tx: Normative
  - Channel: Informative
  - Rx: Normative

Call to action for June interim:

- Receiver compliance testing proposals
- Channel characterization data for:
  - Attenuation Limits
  - Deviation Limits
  - Crosstalk Limits
    - Single Aggressor
    - ACR