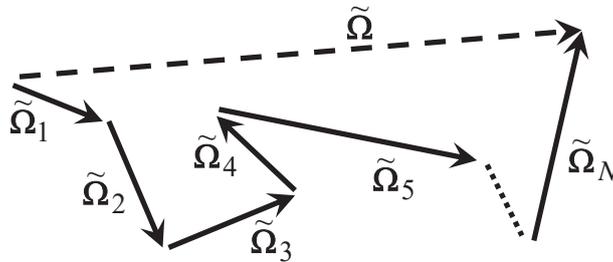


PMDE1000 Polarization Mode Dispersion Emulator

- $N+1$ polarization scrambler modules (boards) EPS1000 with speeds up to 20 Mrad/s (or 50 Mrad/s) and N differential group delay (DGD) sections are integrated into one case. (Standard: 19 inch rack-mount)
- Section DGDs can be switched.
- Typical configuration: 3 EPS1000, 2 DGD sections (switchable, e.g., 15 ps, 50 ps, ..., or external)
- Applications: Polarization mode dispersion (PMD) emulator for coherent fiber links (400 Gb/s 80 km ZR, transoceanic links, Tb/s links, ...). PMD equalization (with user-supplied control signals).



Exemplary differential group delay profile, with overall first-order PMD being equal to sum of individual DGD or PMD vectors



PMD emulator with N DGD sections (indices 1... N) placed between $N+1$ retarders/scramblers SCR (indices 0... N)



Example: PMDE1000 with 3 EPS1000 and 2 switchable DGD sections