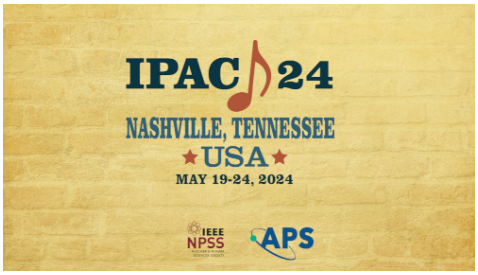

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Design of an X-band parallel-coupled travelling-wave accelerating structure for future linacs

Sunday, 19 May 2024 16:00 (2 hours)

As compared to conventional travelling-wave (TW) structures, parallel-coupled accelerating structures eliminate the requirement for the coupling between cells, providing greater flexibility in optimizing the shape of cells. Each cell is independently fed by a periodic feeding network for this structure. In this case, it has a significantly short filling time which allows for ultrashort pulse length, thereby increasing the achievable gradient. In this paper, a design of an X-band parallel-coupled TW structure is presented in detail.

Footnotes

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