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Brill-Noether loci with small codimension

We will investigate the existence of a smoothable limit linear series of dimension r and degree d on a nodal curve of compact type such that two curves with general moduli are connected by a chain of elliptic curves. The existence of such a linear series means that the nodal curve belongs to the closure of the Brill-Noether locus M(r,d) in \mathcal{M}_g whose point corresponds to a smooth curve possessing a linear series of dimension r and degree d. Using this we see that the Brill-Noether loci with the same Brill-Noether number ρ have mutually distinct supports in case $\rho = -1$ or -2.