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Effective black hole interior and the Raychadhuri equation

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We show that loop quantization leads to the emergence of defocusing terms in the expansion and its rate of change, the Raychaudhuri equation. These terms are suppressed in the region far from the singularity but dominate close to that region and prevent both the expansion and its rate from diverging everywhere inside the black hole. This in turn signals the disappearance of the caustic points and the resolution of singularity in the interior of the black hole.

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