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Title:	Squeezed Atom Laser for Bose-Einstein Condensate with Minimal Length
Authors:	Dey, Sanjib (/jspui/browse?type=author&value=Dey%2C+Sanjib)
Keywords:	Atom laser Generalized uncertainty principle Minimal length Noncommutative space
Issue Date:	2019
Publisher:	Springer Link
Citation:	International Journal of Theoretical Physics, 58(9), pp. 3138-3148.
Abstract:	We study a protocol for constructing a squeezed atom laser for a model originating from the generalized uncertainty principle. We show that the squeezing effects arising from such systems do not require any squeezed light as an input, but the squeezing appears automatically because of the structure of the model it owns. The output atom laser beam becomes squeezed due to the nonlinear interaction between the Bose-Einstein condensate and the deformed radiation field created due to the noncommutative structure. We analyze several standard squeezing techniques based on the analytical expressions followed by a numerical analysis for further insights.
Description:	Only IISERM authors are available in the record.
URI:	<a href="https://link.springer.com/article/10.1007/s10773-019-04190-9?shared-article-renderer">https://link.springer.com/article/10.1007/s10773-019-04190-9?shared-article-renderer</a> ( <a href="https://link.springer.com/article/10.1007/s10773-019-04190-9?shared-article-renderer">https://link.springer.com/article/10.1007/s10773-019-04190-9?shared-article-renderer</a> ) <a href="http://hdl.handle.net/123456789/1821">http://hdl.handle.net/123456789/1821</a> ( <a href="http://hdl.handle.net/123456789/1821">http://hdl.handle.net/123456789/1821</a> )
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