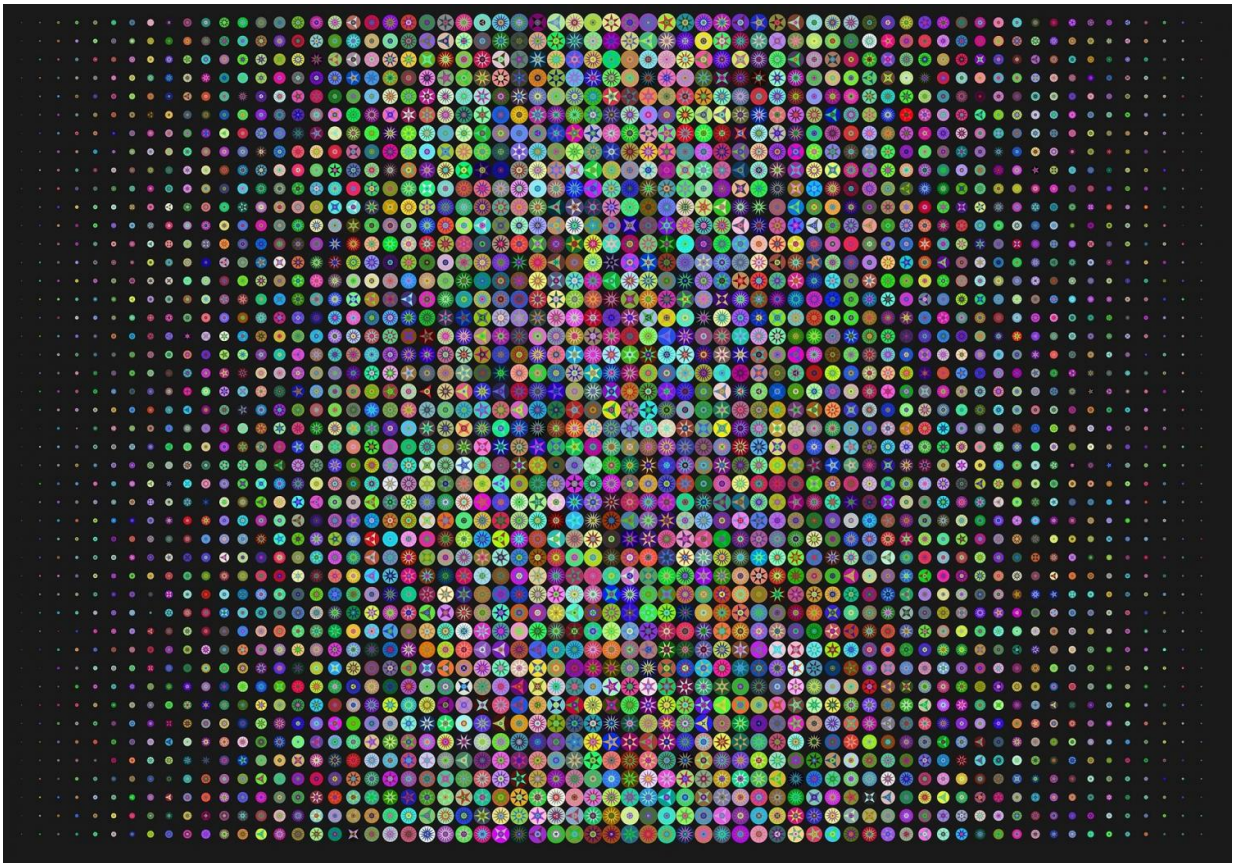


# Recommendation for cryptographic key generation

March 8 2019

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Cryptography is often used in information technology security environments to protect sensitive, high-value data that might be compromised during transmission or while in storage. It relies upon two

basic components: an algorithm (i.e., cryptographic methodology) and a cryptographic key. NIST has developed a wide variety of Federal Information Processing Standards (FIPS) and guidance to specify, approve, and manage cryptographic algorithms and keys for Federal Government use.

NIST invites comments on [Draft Special Publication \(SP\) 800-133 Revision 1](#), Recommendation for Cryptographic Key Generation, which discusses the generation of keys to be managed and used by approved cryptographic algorithms. This revision adds the Edwards-curve Digital Signature Algorithm (EdDSA) to the original list of digital signature algorithms as well as KMAC as an [algorithm](#) for generating a Message Authentication Code (MAC). EdDSA will also be proposed as an additional signature algorithm in a forthcoming revision of Federal Information Processing Standard (FIPS) 186, Digital Signature Standard (DSS). KMAC is specified in SP 800-185, Recommendation for Discrete Logarithm-based Cryptography: Elliptic Curve Domain Parameters. Additional changes are listed in the final appendix of SP 800-133 Rev. 1.

A public comment period for [this document](#) is open until May 8, 2019.

A call for [patent](#) claims is included on page iv of this draft. For additional [information](#), see the [Information Technology Laboratory \(ITL\) Patent Policy—Inclusion of Patents in ITL Publications](#).

Provided by National Institute of Standards and Technology

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