



## Theoretical study of selective laser sintering of polyamide 12

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### Abstract:

The laser sintering process allows to create a wide range of parts printed in 3 dimensions (3D). 3D printing is done layer by layer on powders (plastics, juices, polymers), using a laser. SLS printing requires the use of a special gas, nitrogen, SLS 3D printers are made from two enhancement chambers. The laser draws the case of each region of the 3D drawing on a bed of powder. Each time a diaper is made, the bed breaks and another diaper is made over the previous layers. The bed continues to descend until the last layer is formed and the part is complete, one of the fundamental points of interest of SLS is that it does not need the help structures used by many people. Many other manufacturing innovations of added substances to prevent the plane from falling off during creation. The article rests on a bed of powder, no help is fundamental. SLS innovation really stands out when you need durable plastic parts. It is equipped to deliver fully solid parts suitable for real life testing and mold making, while other added substance production strategies can become tricky after a while; so mathematical modeling to properly optimize this process is necessary.

### Biography

Hanane Yaagoubi : was born in Morocco on 24th April 1992. State engineer diploma (mechanical design and innovation), FST FES, Sidi Mohamed Ben Abdellah University in FES and she is currently a PhD student in the laboratory of applied mechanics and technologies (LAMAT), ENSET, STIS research center Mohammed V University-Rabat, Morocco, Her research is focused on printing 3D.

### Publication of speakers

1. Hamidreza Mosleh et al ; Automation, machine learning, and artificial intelligence in echocardiography: A brave new world, 2018 Sep 2
2. Hamidreza Mosleh et al ; Superplasticity of Ti-6Al-4V Titanium Alloy: Microstructure Evolution and Constitutive Modelling, 2019 May 2
3. Hamidreza Mosleh et al ; Comprehensive methodology for commissioning modern 3D-image-based treatment planning systems for high dose rate gynaecological brachytherapy: A review, 2020 Sep 2

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