

# Réglage de PID fractionnaire pour une Réponse désiré en boucle fermée

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**Abstract :** This work primarily concerns the techniques of the tuning of fractional order controller, we proposed a new tuning techniques are proposed for the fractional order PI<sup>λ</sup>D<sup>μ</sup> controller which consists in returning the closed loop system equivalent to a desired system of a fractional nature, ,like an example of application one to used the PI<sup>λ</sup>D<sup>μ</sup> controller to regulate by the proposed method in the order in position of the DC motor, the results obtained are compared with this one obtained with a classical PID for shown the effectiveness, the robustness and the interest of the use of PI<sup>λ</sup>D<sup>μ</sup> control .

**Keywords :** Bode's ideal function, fractional PI<sup>λ</sup>D<sup>μ</sup> controller, iso-damping property