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# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بللله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأفلام قد اعدت دون آية تغيرات



# يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15-20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of 15 – 25c and relative humidity 20-40 %



ثبكة المعلومات الجامعية





Information Netw. " Shams Children Sha شبكة المعلومات الجامعية @ ASUNET بالرسالة صفحات لم ترد بالأص



### MATHEMATICAL MODELS OF PERISTALTIC TRANSPORT THROUGH POROUS MEDIUM FOR DIFFERENT CASES

#### **THESIS**

Submitted in Partial Fulfilment for the Requirements of the Master Degree in Teacher Preparation in Science (Applied Mathematics)

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Bron:

 $(x_1, x_2, x_3, \dots, x_n) = 0$ v = v - ver, er 

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## **SUMMARY**

#### **SUMMARY**

The purpose of this thesis is to study some problems on interaction of peristaltic flow with pulsatile fluid (for different cases). And in the interaction of peristaltic flow with pulsatile fluid a first order steady exists, which is in contrasted to a second order effect in the absence of the imposed periodic pressure gradient.

The important medical applications of the peristaltic transport with pulsatile fluid through a porous medium are to understand the blood flow in an artery under some pathological situations when the fatty plaques of cholesterol and artery-clogging blood clots are formed in the lumen of the coronary artery. The distribution of these fatty cholesterol and artery-clogging blood clots are deemed to be equivalent to a fictitious porous medium of permeability k.

The thesis contains four chapters, and a list of references.

In chapter I, we gave some information about the following items

- \* We introduce an elementary view of how a peristaltic pump works.
- \* Biofluid mechanics and peristaltic motion.
- \* Historical review on peristaltic transport.
- \* On dusty fluids.
- \* Flow through a porous medium.
- \* Magnetohydrodynamics MHD.

