Warm and cold gas in low-mass protostars : Herschel Space Observatory and ground-based surveys

Yildiz, U

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Universiteit Leiden

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PROEFSCHRIFT

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for Fatime, Duru, Annem & Babam

Front Cover: Image of the dark cloud Barnard 86 in the neighbourhood of the bright star cluster NGC 6520. The image is taken by MPG/ESO 2.2-metre telescope at ESO's La Silla Observatory in Chile. The image is modified and a forming baby as displayed in a womb with an echo is put inside. The analogy resembles that stars are born in those dark molecular clouds and can be observed at long wavelengths. The displayed spectrum is the HIFI spectrum centered at O_2 487 GHz toward NGC1333 IRAS 4A from Chapter 6.

Back Cover: Contour map of bipolar outflows driven by two protostars, NGC1333 IRAS 4A and IRAS 4B from Chapter 4. Solid contours represent the red outflow lobe whereas dashed contours represent the blue outflow lobe.

Wordle: Each chapter begins with a *Wordle* image showing 150 words proportional to the frequency of their usage in each of the chapters, which indirectly acts as summary of that chapter (`www.wordle.net`).

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"Staying steady is going back."
– Anonymous

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