## **Report ESF Reference Number 3702**

## Christoph Weiß

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Concerning the original question we worked on, I can unfortunately not say that there has been any significant progress apart from the realization that the question seems to be hard. Given the short length of my stay, this did not so much come as a surprise to me. However, I nonetheless consider my stay quite successful for two reasons.

Firstly, we isolated some related problems, most prominently the questions if the slender ideal can live on the trace of the internally unbounded sets, and discussed various ideas on them. Another question I think is worth pursuing is the question if Todorčević's axiom PFA(S)[S] implies  $ITP(\omega_2, \lambda)$ . This axiom is a mixture of diamond like behavior on the one side and PFA like behavior on the other, and since it implies the failure of square one might conjecture it should also imply this stronger principle.

Secondly and more importantly, I consider my stay successful in that I was able to connect scientifically to new people in the set theoretic community who were interested in my results. Professor Sakae Fuchino will invite me to Kobe University in January or February next year for a longer stay during which I can work with both him and Hiroshi Sakai. Therefore from the scientific exchange point of view I think my visit could not have gone better, also I felt the reception of my talks was quite good.